# Establishing a core set of national, sustainable mental health indicators for children and young people in Scotland: Final Report

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## Acknowledgements

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## Abbreviations

| | |
|---|---|
| FAS | Foetal Alcohol Syndrome |
| FASD | Foetal Alcohol Spectrum Disorder |
| GHQ-12 | 12-item General Health Questionnaire |
| GIRFEC | Getting it Right for Every Child |
| HBSC | Health Behaviour in School-aged Children Survey |
| ISD Scotland | Information Services Division (of NHS Scotland) |
| PTSD | Post Traumatic Stress Disorder |
| SALSUS | Scottish Schools Adolescent Lifestyle and Substance Use Survey |
| SDQ | Strengths and Difficulties Questionnaire |
| SHANARRI | GIRFEC wellbeing indicators of Safe, Healthy, Active, Nurtured, Achieving, Respected, Responsible and Included |
| SMR01/02/04 | Scottish Morbidity Records |
| WEMWBS | Warwick-Edinburgh Mental Well-being Scale |

# Executive Summary

## Background

Improving mental health is a national priority in Scotland and remains a focus in the development of future policy (*Mental Health Strategy for Scotland: 2011-2015. A Consultation* (Scottish Government, 2011a)). *Towards a Mentally Flourishing Scotland: Policy and Action Plan 2009-2011* (*TAMFS*) (Scottish Government, 2009) committed NHS Health Scotland to work with key stakeholders to develop a set of national indicators for children and young people's mental wellbeing, mental health problems and related contextual factors. This continued the commitment to the mental health indicators originally made in *Improving Health in Scotland: The Challenge* (Scottish Executive, 2003a).

Building on NHS Health Scotland's work to develop a core set of national indicators for adult mental health[1] (see [www.healthscotland.com/scotlands-health/population/mental-health-indicators-index.aspx)](www.healthscotland.com/scotlands-health/population/mental-health-indicators-index.aspx), NHS Health Scotland has now established a similar set of indicators for children and young people (aged 17 years and under[2]), covering both the state of mental health (mental health problems and mental wellbeing) and associated contextual factors. These provide, for the first time, a means of assessing and monitoring mental health and its context for Scotland's population of children and young people nationally over time and will help inform policy and planning (for further information on, and the outputs from, the children and young people's indicators work see [www.healthscotland.com/scotlands-health/population/mental-health-indicators/children.aspx](www.healthscotland.com/scotlands-health/population/mental-health-indicators/children.aspx)).

## Process

A mixed approach was used to obtain measurable, meaningful indicators relevant to the policy-making process and for which, as far as possible, data are available at a national level. This took into account current policy, data, the evidence-base, expert opinion (through a national advisory group and other contacts), children and young people's views (through a literature review (Shucksmith *et al.*, 2009) and focus groups (Elsley and McMellon, 2010)) and theory. The indicators have been developed within a modified version of the adult framework to allow continuity with the adult indicator set.

The process involved:

1. reviewing the evidence, including that from children and young people, to determine a desirable set of indicators and a suitable framework
2. consulting on a draft framework via a large national event with stakeholders, an electronic consultation (Parkinson, 2010a) with key experts, organisations and networks and focus groups with specific groups of children and young people whose views on what impacts on their mental health were inadequately represented in the literature (Elsley and McMellon, 2010)
3. reviewing and assessing the suitability of relevant administrative and survey data, currently collected nationally in Scotland, and of existing national indicators
4. aligning with wider policy initiatives, specifically identifying overlaps with existing

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[1] NHS Health Scotland and the *Indicators of Mental Health Programme* have taken the term mental health to be an overarching term covering both mental health problems and mental wellbeing.

[2] The upper age limit has been extended to 18 or 19 years in a few instances to allow the creation of a robust indicator or to align with an existing national indicator.

indicators sets and outcome measures in current policy and initiatives

5. identifying robust indicators that can be reported on using existing data

6. identifying additional data needs for desirable data-less indicators and priorities for new data collection to fill these data gaps

7. exploring opportunities to collect the recommended new data, and working to influence existing data collection systems to fill these additional data needs[3]

8. ensuring the sustainability of data for the indicator set.

## Indicator set

Within the framework, the indicators are structured under constructs (categories) of two types (Table 1 below):

1. High level constructs – state of mental health

2. Contextual constructs – covering the contextual factors (the risk and protective factors for, and the consequences of, mental health), which may be at an individual, family, learning environment, community or structural domain level.

**Table 1: Framework of constructs for the indicators (number of indicators)**

| High Level Constructs | | | | |
|---|---|---|---|---|
| Mental wellbeing (4) | | | Mental health problems (11) | |
| **Contextual Constructs** | | | | |
| **Individual** | **Family** | **Learning environment** | **Community** | **Structural** |
| Learning and development (2) | Family relations (7) | Engagement with learning (3) | Participation (4) | Equality (5) |
| Healthy living (7) | Family structure (4) | Peer and friend relationships (7) | Social networks (1) | Social inclusion (8) |
| General health (3) | Parental healthy living (5) | Educational environment (5) | Social support (1) | Discrimination (3) |
| Spirituality (1) | Parental health (5) | Pressures and expectations (5) | Trust (3) | Physical environment (5) |
| Emotional intelligence (1) | | | Safety (1) | Violence (3) |
| Life events (2) | | | | Culture (3) |

The indicators are drawn from both administrative and survey data. In total the indicator set contains 109 indicators (one of which, equality analysis, involves analysing the other indicators by dimensions of equality). Some of these indicators have multiple measures (see individual construct sections in Chapter 3 or the full list of indicators in Appendix 3), which have arisen because some indicators use several data sources to enable reporting for different age groups, or for reporting on different aspects of the indicator.

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[3] Influencing national data collection is a huge agenda, especially as there are many data gaps. This requires working with policy colleagues with similar data needs; meetings were undertaken with Scottish Government policy and data colleagues to identify such overlapping needs.

An aim of the work was to avoid restricting the indicator set by data availability.  As a result, although current data availability significantly shaped the indicators, there are five indicators that are not fully supported by currently available national data and 35 indicators that are not supported at all (these data-less indicators and measures are highlighted in the tables of indicators).  Therefore further development is recommended on data collection in these areas.

## Focus on both mental health problems and mental wellbeing

The focus on mental wellbeing in addition to mental health problems has been vital to the work.  The Warwick-Edinburgh Mental Well-being Scale (WEMWBS), developed in the course of the adult mental health indicator work to provide a suitable mental wellbeing scale (Tennant *et al.*, 2006, 2007), was therefore validated for use at a population level to measure mental wellbeing in teenagers (aged 13 years and above) (Clarke *et al.*, 2010, 2011).  It is now included in the Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) from 2010, providing data for one of the mental wellbeing indicators.

## Conclusion

The development of this set of mental health indicators for Scotland complements that for adults and is a further significant milestone.  It is a recognition of the importance of mental health to a 'flourishing' Scotland and the need for data on mental wellbeing, in addition to data on the prevalence of mental health problems.  The current indicator set is necessarily limited by gaps and weaknesses in the evidence-base, availability of data and the feasibility of collecting data, as well as the complexities and ambiguities surrounding key concepts like spirituality.  For these reasons it is acknowledged that the current indicator set is not the final answer to creating a summary profile of Scotland's mental health for children and young people.  However, it provides a firm basis on which to build and develop a greater understanding of the causes and consequences of mental health and how these can best be measured.  It is hoped that this work will also contribute to a greater focus on mental health impact, at a national and local level and across all sectors.

## Recommendations

Inevitably, the creation of an indicator set such as this identifies areas where further work is required. The recommendations below document these gaps for data producers and commissioners to consider in the future. NHS Health Scotland itself will report on, maintain and update the national indicators dataset on the ScotPHO website (www.scotpho.org.uk), thus fulfilling recommendation 1 and partly recommendations 2 and 5 below.

### 1. Reporting on the indicators

The national mental health indicators for children and young people should be reported on every four years to track progress and change over time. ScotPHO is the most appropriate body to report on the indicators and, within this collaboration, NHS Health Scotland will fulfil this task.

### 2. Updating the indicators

The indicators should be updated as required to reflect advances in the evidence-base and changes in the data sources. As the evidence-base improves and the nature, direction and magnitude of the relationship between personal, social and structural factors and mental health become better understood, so the indicators may need amendment. Furthermore, the data sources available to populate the indicator set are likely to change over time and the indicator set will need to be adjusted to account for this. It is important that survey managers of the national surveys remain aware of this important use of their data.

### 3. Wider use of the indicators

Local colleagues should look to utilise and adapt the indicators to inform local work and report on local outcomes. While developed as national indicators, the national mental health indicators form a set from which local colleagues can select those relevant to their needs. Where possible, data for the national indicators have been drawn from national sources which allow as much sub-national disaggregation as possible. However, many of the data sources cannot provide data at the sub-national geographies required and there may be a need for the use of other local data sources or for new local data collection. For the latter, it is suggested that the questions and scales used in national surveys for the national indicators be used, thus matching the definitions of the national indicators to ensure comparability.

### 4. Improved data collection for the monitoring of mental health and its context

It is recommended that data be collected in routine national data collection systems for indicators and measures for which there is currently no suitable national data source that could be used for monitoring purposes.[4]

### 5. Analysis of existing datasets

Continued analyses of existing datasets are required, and especially datasets which include measures of mental wellbeing. Existing datasets represent an under-utilised resource for furthering the evidence-base about the factors that influence mental health. With the inclusion of the Warwick-Edinburgh Mental-wellbeing Scale (WEMWBS) in recent surveys,

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[4] A full recommendation for each data gap identified in the indicator set is listed in the appropriate construct (indicator) section and the full list of recommendations is presented in Appendix 6. In many instances colleagues working in other policy areas desire similar new or improved data. There are, therefore, clear overlaps in data requirements which can be capitalised on and opportunities to work together should be identified.

these datasets can contribute to determining whether risk and protective factors differ for mental health problems and mental wellbeing.

## 6.  Longitudinal studies

Longitudinal studies are required to help investigate whether identified associations between mental health and key personal, social and structural factors are causal, confounding or coincidental.  It is especially important that mental wellbeing be assessed in longitudinal studies as currently the greater proportion of the mental health evidence-base relates to mental health problems.

# 1. The Indicators of Mental Health Programme: Children and Young People

## 1.1 Introduction

Improving mental health is a national priority in Scotland, as demonstrated by the publication of *Towards a Mentally Flourishing Scotland: Policy and Action Plan 2009-2011* (*TAMFS*) (Scottish Government, 2009), and remains a focus in the development of future policy (*Mental Health Strategy for Scotland: 2011-2015. A Consultation* (Scottish Government, 2011a)). *TAMFS* set the agenda for mental health improvement in Scotland until 2011. It laid out clearly the need to develop 'a national picture of mental wellbeing and mental health problems among infants, children and young people in Scotland' to assess progress in improving mental health and to monitor future trends and set the following commitment for NHS Health Scotland:

> Commitment 4: NHS Health Scotland will work with key stakeholders to develop a set of national indicators for children and young people's mental wellbeing, mental health problems and related contextual factors by 2011 (*TAMFS,* p.17).

This continued the commitment to the mental health indicators originally made in *Improving Health in Scotland: The Challenge* (Scottish Executive, 2003a), and reiterated in the action plan for the Scottish Government's National Programme for Improving Mental Health and Well-being (*National Programme Action Plan 2003-6* (Scottish Executive, 2003b)).

Building on NHS Health Scotland's previous work to develop a core set of national indicators for adult mental health (see www.healthscotland.com/scotlands-health/population/mental-health-indicators-index.aspx),[5] NHS Health Scotland has now established a similar set of indicators for children and young people (aged 17 years and under[6]) in line with the *TAMFS* commitment, covering both the state of mental health (mental health problems and mental wellbeing) and associated contextual factors. These provide, for the first time, a means of assessing and monitoring mental health and its context for Scotland's population of children and young people nationally over time and will help inform policy and planning (for further information on, and the outputs from, the children and young people's indicators work see www.healthscotland.com/scotlands-health/population/mental-health-indicators/children.aspx).

This document sets out the background, objectives, process, rationale and achievements of the *Indicators of Mental Health Programme* for children and young people. This includes the framework of constructs[7] within which the indicators have been developed and an overview of the evidence-base for the constructs and the indicators, working understandings, the indicators, measures and data sources themselves including the questions and scales used and recommendations. The overlap to other key Scottish policies and strategies for children

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[5]    The term 'mental health' is used by NHS Health Scotland and the Scottish *Indicators of Mental Health Programme* as an overarching term covering both mental health problems and mental wellbeing (see section 1.2). This terminology is used throughout this report, except in some instances when reporting on the research of others, where their language has been retained.

[6]    The upper age limit has been extended to 18 or 19 years in a few instances to allow the creation of a robust indicator or to align with an existing national indicator.

[7]    Where a construct refers to a categorising conceptual element, see section 2.1 and Table 1.

and young people are also highlighted.  A separate report, due for completion in 2013, will provide full data analyses for the indicators for which data are currently available.

## 1.2  The understanding of mental health behind the indicators programme

Mental health is a much debated concept, with no universally accepted definition or consistency in use of terminology.  The way mental health is conceptualised, however, will affect how it is measured.  Historically, assessment of population mental health has largely focused on levels of psychiatric morbidity using surveys and scales to determine prevalence of mental health problems (Stewart-Brown, 2002; World Health Organization *et al.*, 2004). Recent research suggests that mental health consists of two dimensions: mental health problems (mental illness, psychiatric morbidity) e.g. depression and anxiety, and mental wellbeing (positive mental health) which includes, for example, life satisfaction, positive relationships with others and purpose in life (for a full discussion see *Establishing a core set of national, sustainable mental health indicators for adults in Scotland: Rationale paper* (Parkinson, 2007a) and more recent research Peter *et al.,* 2011).  Good mental health is therefore more than the absence of mental health problems.  The growing recognition of the importance of mental wellbeing has generated increased interest in developing indicators to measure mental wellbeing to accompany indicators of psychiatric morbidity (Stewart-Brown, 2002).  Accordingly, the Scottish *Indicators of Mental Health Programme* has established mental health indicators that encompass both mental health problems and mental wellbeing.

In NHS Health Scotland mental healt' is used as an umbrella term to refer to both the concepts of mental health problems and mental wellbeing.  This is consistent with a dual continua model of mental health in which mental health problems and mental wellbeing are viewed as two separate continua, rather than as ends of the same continuum (Tudor, 1996). For the children and young people's indicators work, therefore, mental health is being used as a broad, overarching concept encompassing both indicators for mental wellbeing and mental health problems.

An important feature to bear in mind is the range of terminology used to denote mental health in work with children and young people.  Different disciplines and professional orientations give rise to variation in the terms used within education, social care and youth work settings in both policy and practice, for example, emotional health, social and emotional wellbeing, resilience and so on.  The indicators work was cognisant of the use of different language in different arenas, but in view of the wide range of different terminology in use, and as the work originated from a mental health perspective, after considerable discussion within the Children and Young People's Mental Health Indicators Advisory Group it was agreed that it is appropriate to retain the language of mental health with a recognition that some may use different language, appropriate for their discipline, when referring to the work etc.  The indicators project has, however, sought to ensure clarity and consistency in the constructs and terminology it employs.  For the indicators (and their measures) themselves, the terminology stems largely from the questions/data on which they are based and so is largely predetermined.

There is also a huge variability in the way in which the terminology relating to children and young people is used in the literature.  This has meant that this document uses the terms interchangeably.

A further point on terminology is the need to ensure that constructs and indicators and the terminology used to describe them is appropriate to the life stage of the child or young person. This is particularly challenging where the evidence underpinning a particular construct or indicator is general and not specific to children and young people.

## 1.3 Child development, resilience and mental health

The mental health of children and young people in Scotland today is not simply a product of the current contextual factors, outlined in this report, which impact on the mental health of children and young people but is a product of all these contextual factors that they have experienced from conception and which have been passed from their parents' generation. The mental health of individual children is therefore an emergent property of their development experiences, and for a population, is a product of the contextual experiences each cohort of children and young people have been exposed to throughout their life.

Further, children clearly differ in their vulnerability to the adverse effects of negative environments (Getting it Right for Every Child, 2008; Jenkins, 2008). This depends on their resilience to the stress environment, which means that some children will do well despite exposure to high levels of environmental adversity. The concept of resilience is central to the Scottish Government's policy Getting it Right for Every Child (GIRFEC) and a 'resilience matrix' is a central part of the Scottish Government's integrated assessment framework of GIRFEC (see www.scotland.gov.uk/Topics/People/Young-People/gettingitright).[8] A good working definition of resilience has been described as '…a phenomenon or process reflecting relatively positive adaptation despite experiences of adversity or trauma' (Daniel, 2009).

Resilience is a dynamic process that involves adaptations that occur prior to, during and after stress exposure. This complex process of adaptation can function to alter the impact of adverse events on the child, increasing or decreasing their susceptibility. Evidence indicates that child-specific attributes at the biological (both endogenous, e.g. genetic effects, and due to environmental adversities that affect the developing brain), cognitive and behavioural level moderate the impact of psychosocial adversity, as do external factors, the most consistent external factor being social support/relationships. It is clear that the mental health of a child, and how well they do in the face of environmental adversities, is the result of a complex interplay of many factors contributing to their individual level of resilience. Thus, the impact of an unfavourable situation in relation to, for example, one of the contextual factors will not necessarily mean that a child will develop a mental health problem or have poor mental wellbeing. While their risk may be increased, the outcome will depend on the individual situation of a child in relation to many factors impacting on them and their own level of resilience. However, at a population level, improving contextual factors are likely to result in an overall improvement in mental health outcomes in Scotland, and worsening contextual factors are likely to result in an overall decline.

## 1.4 Purpose and use

The project aimed to establish a comprehensive set of mental health indicators for the population aged 17 years and under. The indicators support and promote consistent and

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[8] Promoting resilience is part of the values and principles underpinning GIRFEC, see www.scotland.gov.uk/Resource/Doc/238985/0065816.pdf and www.scotland.gov.uk/Resource/Doc/238985/0065817.pdf.

sustainable national monitoring of the state of mental health and the associated contextual factors for children and young people in Scotland and will be used to create a mental health profile for children and young people in Scotland. They will, therefore, allow the Scottish Government and others to determine progress in improving population mental health, highlight key trends, identify inequalities and point to where the focus for future action should lie.

The national profile will provide the first ever systematic assessment of, and a unique insight into, the mental health of children and young people in Scotland and its context (*Scotland's Mental Health and its Context: Adults 2009* illustrates what this could look like (Taulbut *et al.*, 2009)). Updated every four years to assess trends, the profile will result in a greater understanding of the current and changing picture of mental health within this population and the factors that influence it. It will provide a benchmark for mental health improvement in Scotland to help inform decision-making about priorities for action and resource allocation and will shape and inform future policy decisions across Government, and by others at national and local levels, by indicating the overall mental health outcomes of policies, initiatives and other activities. Comparisons between population groups and geographical areas of Scotland may also be possible where data allow (see also section 1.12 Who are the indicators for?).

## 1.5 Coverage
The indicator set was designed to:

- be at a national population level
- cover both mental wellbeing and mental health problems
- assess current experience of mental health and the associated contextual factors that have a bearing on children and young people's mental health status
- cover individuals aged 17 years and under (including the pre-birth period), consistent with the United Nations definition of a child[9] and the Scottish Child and Adolescent Mental Health Services framework (United Nations General Assembly, 1989; Child and Adolescent Mental Health Development Group, 2005). For pragmatic reasons, however, the upper age limit has been extended to 18 or 19 years in a few instances to allow the creation of a robust indicator or to align with an existing national indicator. Finally, some indicators relate to the behaviour of those aged 18 years and above that has an impact on the mental health of those aged under 18 years, for example, parental substance misuse and maternal behaviour during the pre-birth period.
- comprise sub-sets of indicators for different age groups which relate to stages of development, Appendix 4. It is acknowledged that the boundaries of these stages are fluid, but for practical reasons the age range for these sub-sets need to be specified. The following working descriptive divisions have been used: pre-birth; pre-school; primary; secondary; and post–compulsory schooling (this will capture individuals who have remained on at school and those who have not). This division also reflects the fact that, individually, many of the indicators cover only a narrow part of the full age range, again due to the way data are collected and the fact that assessment methods need to be age-appropriate and thus differ for different age groups covered by the indicators.

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[9]  The United Nations *Convention on the Rights of the Child*, Article 1 states: 'For the purposes of the present Convention, a child means every human being below the age of eighteen years unless under the law applicable to the child, majority is attained earlier.'

The indicator set is not designed to:

- assess the availability, appropriateness, efficiency or effectiveness of service provision, or for performance monitoring purposes
- assess individual legislation, policies, strategies or initiatives
- create a summary score or index.

## 1.6  How the work progressed

The work capitalised on experience gained whilst establishing the adult mental health indicator set.  A mixed approach was used to obtain measurable, meaningful indicators relevant to the policy-making process and for which, as far as possible, data are available at a national level.  This took into account current policy, data, the evidence-base, expert opinion (through a national advisory group, Appendix 1, and other contacts), children and young people's views (through a literature review (Shucksmith *et al.,* 2009) and focus groups (Elsley and McMellon, 2010)) and theory.  This mixed approach is based on population health, takes account of the criteria for the indicators above and means that the identification of indicators was neither solely data- nor policy-driven (Parkinson, 2007a).

Although an aim was to avoid restricting the indicator set by data availability, in reality to obtain an indicator set that has practical utility and can be reported on, current data availability significantly informed decisions and shaped the indicators.  However, despite this, recognising that what is measured is often taken to be what is important, which is not necessarily always true, the final indicator set also includes indicators for which there are no data currently available, as a prompt for future development and as a means of moving the mental health improvement agenda forwards.  A balance has, however, been met between the ratio of indicators that can currently be reported on and those which are aspirational, so that the indicator set has significant immediate monitoring utility.

## 1.7  Process

The key stages of development were:

1. reviewing the evidence, including that from children and young people, to determine a desirable set of indicators and a suitable framework

2. consulting on a draft framework via a large national event with stakeholders, an electronic consultation (Parkinson, 2010a) with key experts, organisations and networks and focus groups with specific groups of children and young people whose views on what impacts on their mental health were inadequately represented in the literature (Elsley and McMellon, 2010)

3. reviewing and assessing the suitability of relevant administrative and survey data, currently collected nationally in Scotland, and of existing national indicators

4. aligning with wider policy initiatives, specifically identifying overlaps with existing indicators sets and outcome measures in current policy and initiatives

5. identifying, and establishing a consensus on, robust indicators that can be reported on using existing data

6. identifying additional data needs for desirable data-less indicators and priorities for new data collection to fill these data gaps

7. exploring opportunities to collect the recommended new data, and working to influence

existing data collection systems to fill these additional data needs[10]

8. ensuring the sustainability of data for the indicator set.

In taking forward the children and young people's phase of the *Indicators of Mental Health Programme*, key expert input was provided to NHS Health Scotland by an advisory group (Appendix 1). The Advisory Group consisted of individuals representing, for example, a range of policy agendas, the research and voluntary communities and different skill sets such as knowledge of the evidence-base, advocacy and data.

The work was also committed to the principle established in the United Nations' *Convention on the Rights of the Child* of respect for the view of the child (article 12), acknowledging children's right to be heard and to have their views taken into account in matters that affect them (United Nations General Assembly, 1989). The following were therefore commissioned to inform the work from a children and young person's perspective:

- a critical review of the literature on children and young people's views of the factors that influence their mental health (Shucksmith *et al.*, 2009)

- consultation with children and young people on the draft indicators framework through focus groups with specific groups of children and young people whose views are not adequately represented in the literature (Elsley and McMellon, 2010) (see section 1.9 Awareness raising, consultation and dissemination).

The focus on mental wellbeing in addition to mental health problems has been vital to the work. The Warwick-Edinburgh Mental Well-being Scale (WEMWBS), developed in the course of the adult mental health indicator work to provide a suitable mental wellbeing scale (Tennant *et al.*, 2006, 2007),[11] was therefore validated, in a commissioned project, for use at a population level to measure mental wellbeing in teenagers (aged 13 years and above) (Clarke *et al.*, 2010, 2011). It has now been included in the Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) from 2010, providing data for one of the mental wellbeing indicators.

## 1.8 Alignment with other policy developments

Given the cross-cutting nature of mental health, it was acknowledged that the indicator set will be of relevance and value to policy areas beyond health improvement. With this in mind, the children and young people's mental health indicators sought to align with key national outcome frameworks and indicators in existence or in development for other relevant Scottish policies and programmes. This included specifically the Early Years Framework, Getting it Right for Every Child (GIRFEC), Curriculum for Excellence (CfE) and Equally Well (Scottish Executive, 2004a; Scottish Executive, 2004b; Scottish Government, 2008b; Scottish Government, 2008c). This was achieved by ensuring that the children and young people's mental health indicators advisory group included key stakeholders from these policy agendas and by organising awareness raising meetings with representatives from wide policy objectives (Appendix 1 and section 1.9 Awareness raising, consultation and dissemination).

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[10] Influencing national data collection is a huge agenda, especially as there are many data gaps. This requires working with policy colleagues with similar data needs; meetings were undertaken with Scottish Government policy and data colleagues to identify such overlapping needs.

[11] See   www.healthscotland.com/scotlands-health/population/Measuring-positive-mental-health.aspx for information on WEMWBS.

Other national strategies for which there is a clear relevance to the mental health indicators include:

- Achieving Our Potential: A framework to tackle poverty and income inequality in Scotland (2008)
- Changing Scotland's Relationship with Alcohol: A framework for action (2009)
- Child Poverty Strategy for Scotland (2011)
- Getting It Right For Young Carers: The young carers strategy for Scotland: 2010 – 2015 (2010)
- Good Places, Better Health: A new approach to the environment and health in Scotland: implementation plan (2008)
- Government Economic Strategy (2007, 2011)
- Healthy Eating, Active Living: An action plan to improve diet, increase physical activity and tackle obesity (2008-2011) (2008)
- Let's Make Scotland More Active: A strategy for physical activity (2003)
- Looked After Children and Young People: We can and must do better (2007)
- More Choices More Chances; A strategy to reduce the proportion of young people not in education, employment or training in Scotland (2006)
- National Domestic Abuse Delivery Plan for Children and Young People (2008)
- Preventing Overweight and Obesity in Scotland: A route map towards healthy weight (2010)
- Rights of Children & Young People Bill, consultation (2011)
- Scotland's Future is Smoke-free: A smoking prevention action plan (2008)
- Skills for Scotland: Accelerating the recovery and increasing sustainable economic growth (2010)
- The Road to Recovery: A new approach to tackling Scotland's drug problem (2008)
- The Sexual Health and Blood Born Virus Framework 2011-15 (2011)

Within the health field, the mental health indicators work was developed in parallel with other national work on children and young people's health and wellbeing community profiles to ensure consistency and informed work on a mental health improvement outcomes framework (Mitchell *et al.,* 2010; Reid and Teuton, 2010).

Indicators/outcomes from major key national indicator sets, which are of direct relevance or alignment to the children and young people's mental health indicators (see Chapter 3 for a list of what these are), have been noted at the end of each construct section in this report, after the relevant children and young people's mental health indicators themselves have been listed.

## 1.9  Awareness raising, consultation and dissemination

As noted, it has been important to the progress of the indicators work to highlight the cross-cutting nature of mental health and the relevance, importance and contribution of the indicator set to policy areas and agendas other than health improvement (Figure 1).  The indicators programme worked to build relationships with other policy areas, and those developing other indicator sets and national datasets, so that by working together, shared goals and overlapping data needs may be met.  It also means that, where possible, the indicators will be

of practical benefit to a broad spectrum of users.

**Figure 1: Illustration of the cross-cutting nature of mental health and the indicator set**
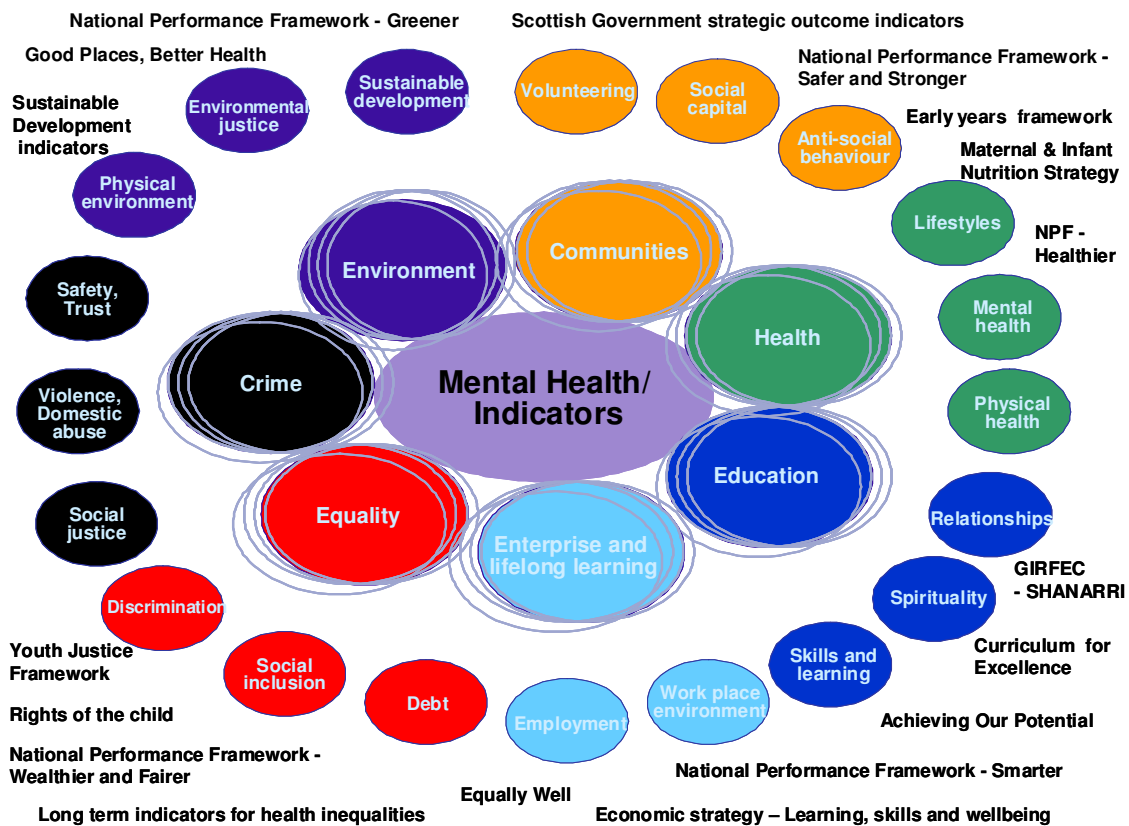


To assist in this, the Advisory Group included individual from other key policy agendas and two awareness raising meetings were held. The first of these meetings, held in January 2010 with Scottish Government policy representatives from policy areas identified as having a clear link to the mental health of children and young people (covering for example schools, drugs and community safety, justice, alcohol policy, care and justice, primary and community care mental health, culture, public health and greener Scotland), sought to:

- inform key policy partners across the Scottish Government about the programme of work and highlight its contribution to many diverse policy agendas
- establish links with other relevant data/indicators work
- provide an opportunity for policy colleagues to be made aware of the content of the indicator set in development and elicit initial impressions as the first stage of wider consultation
- identify other key national players who needed to be made aware of the project and how this could be achieved.

A follow-up meeting in September 2010, similarly invited Scottish Government colleagues who had a clear link between their area of policy concern and the mental health of children and young people but additionally included Scottish Government colleagues and key stakeholders important to liaise with when seeking to influence data collection systems. The primary purpose of this event was to engage in discussion with policy colleagues and key stakeholders about improving the data that are collected to assess mental health for children and young people and its wider context, identifying overlapping additional data requirements

between different policy agendas and how these can be jointly targeted. The event also sought to:

- inform participants about the progress of the programme of work and highlight its contribution to many diverse policy agendas
- continue to foster links with other relevant data/indicators work
- provide an opportunity for participants to be made aware of the content of the indicator set in development
- identify further key national players who need to be made aware of the project and how this could be achieved.

Views were sought through consultation on the draft framework for the constructs (March – June 2010). Comments were invited on the preliminary thinking behind, and the rationale for, proposed constructs for the indicators and the framework. These informed further refinement of the framework and the development of the indicator set. The consultation process comprised several strands:

- a large scale national event on the 1st March 2010 to inform stakeholders about the project's progress and gain feedback (approximately 240 delegates from a wide range of policy areas and professions)
- direct engagement with children and young people, between February and May 2010, through focus groups with specific groups of children and young people whose views on what impacts on their mental health were not adequately represented in the literature (Shucksmith *et al.*, 2009). This included children who were: younger (3 to 8 years of age); from black and minority ethnic groups; gypsy travellers; excluded; carers; deaf; had experienced care; and who had learning disabilities (Elsley and McMellon, 2010).[12]
- an electronic consultation (via the consultation document *Establishing a core set of national, sustainable mental health indicators for children and young people in Scotland: Draft framework consultation document*, Parkinson 2010), between mid-April and end of May 2010, primarily with key experts, networks and organisations.

The final indicator set was shared with approximately 240 colleagues in Scotland at a dissemination event at the Glasgow Royal Concert Hall on 25th November 2012 (Parkinson, 2012). The indicators were well received and welcomed. Whilst many saw the potential of the indicators for local use and how they link with other policy initiatives there were some who for them this was not so clear. This highlighted the need for subsequent work by NHS Health Scotland to support local use of the indicators (Parkinson, 2012) (see section 2.4.5 Support for local use). As with other outputs from the work, the final indicator set was disseminated wider via networks, electronic newsletters, the webpage for the children and young people's mental health indicators ([www.healthscotland.com/scotlands-health/population/mental-health-indicators/children.aspx](www.healthscotland.com/scotlands-health/population/mental-health-indicators/children.aspx)) and conferences/seminars etc.

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[12] Although the mental health indicators are for the general population of children and young people, the findings from this consultation project provide additional valuable information, especially for those working with the specific groups of children and young people included in the work. The consultation is therefore a valuable resource to supplement the indicators framework and will be of assistance in ensuring that a population-wide approach acknowledges potential differences and inequalities in mental health among different groups of children and young people.

## 1.10  National mental health data and sustainability

For about half of the indicators, existing surveys were identified as the most suitable source of existing data.  Of the national surveys relevant to children and young people, the main ones, for example, the Scottish Health Survey, Scottish Household Survey, Health Behaviour of School-aged Children Survey (HBSC) and the Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS), with their larger sample sizes were chosen as these would allow greater disaggregation of the data for sub-national or sub-group analyses.

Obvious data gaps were identified between currently collected data and that needed for the full indicator set.  Many related to early years, and for some constructs all desirable indicators were data-less e.g. discrimination.  The indicators programme sought to fill these data gaps by exploring means of collecting the new data in national surveys.

Ensuring the collection of new data in national Scottish surveys involved influencing the content of the chosen surveys.  Individuals managing the surveys were consulted throughout the work to obtain current questionnaires, seek advice on best data to use, and determine survey developments.  When Scottish national surveys came under review, consultations on the content of these surveys were engaged with as much as possible according to the stage the indicators work had reached.

A submission was made for the children and young people's indicators when the content of the SALSUS was consulted on in 2010.  This included making the case for retaining certain existing questions in the survey, including the Strengths and Difficulties Questionnaire (SDQ) to assess emotional and behavioural difficulties, and also for the additional inclusion of the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) to cover mental wellbeing.  The submission was successful and WEMWBS was included in SALSUS from 2010 to assess overall mental wellbeing, providing data for one indicator for S2 and S4 pupils (circa 13 and 15 year olds).  The success was assisted by input and supporting statements from individuals across several policy areas (Scottish Government, researchers, practitioners etc).  Gaining this support benefited from preparatory work which had sought to highlight the importance of the indicator work to other policy areas (section 1.9 Awareness raising, consultation and dissemination).  Similarly, engagement with the Scottish Health Survey questionnaire review in 2011 helped ensure the retention of important questions for the indicators and has also led to the future inclusion of WEMWBS for 13 to 15 year olds from 2012.  This will complement the SALSUS WEMWBS data and add to the data already collected in the Scottish Health Survey on mental wellbeing (via WEMWBS) for those aged 16 years and over.

As well as engaging with the survey review processes to seek both the collection of new data and the retention of existing data already identified for the indicators, survey managers were also independently made aware of the use of their survey data/questions for the indicators to further aid the retention of key survey questions and thus sustainability of data for the indicators.

## 1.11  Rationale, constraints and challenges to the indicators work

The full rationale behind the indicators programme is laid out in the paper *Establishing a core set of national, sustainable mental health indicators for adults in Scotland: Rationale paper* (Parkinson, 2007a).  This also includes a discussion of the constraints and challenges within

which the *Indicators of Mental Health Programme* has worked.  In comparison to the adult mental health indicators, additional challenges and constraints were evident for the children and young people's indicators.  The main ones have been:

- limitations of the evidence-base, including at times its equivocal nature and/or absence (see Chapter 3).  In some instances further work is required to determine from the evidence-base what is best to be assessed for an indicator, for example spirituality.

- data limitations and challenges:
    - limited age coverage, especially for some ages groups.  This is due to:
        i) the age covered by the data sources, some surveys sample specific ages or school-year groups only
        ii) a lack of suitable tools for collecting data, especially in the early years
    - multiple measures required for an indicator, which creates additional analytic demands.  This reflects the fact that:
        i) frequently one survey does not cover the full age range necessitating multiple survey sources being required
        ii) different means of assessment are frequently required, as they need to be appropriate for the developmental stage of the child
        iii) there are multiple aspects to some indicators, which are assessed separately
    - small sample size/number of cases, which means that to ensure robust data analysis the age range was increased to 19 years for a few indicators,[13] and/or data will be averaged across several years, to compensate
    - representativeness of the data, as the survey data are collected from those living in households or from school classes so samples may not adequately reflect all groups of children and young people.  Additionally, some data are not self-reported but are obtained via parental report for the child (for those of young age) or on behalf of the household
    - what is measurable compared to what is desirable, available data do not cover all the desired indicators or for all ages.  This:
        i) is across all age groups but especially early years.  For P7, S2 and S4 pupils (circa 11, 13 and 15 year olds) there is better coverage due to the existence of two school surveys
        ii) covers all areas of the indicators framework but in some instances entire constructs e.g. learning & development, discrimination, violence

- an absence of suitable scales or questions, in some instances there is a need for more work to further explore a concept and then develop an appropriate short scale or question(s) suitable for inclusion in general population surveys

- the lack of data and a means of easy assessment, which leads to greater reliance on administrative sources.  It can be difficult to interpret behind changes in administrative data and administrative systems can be more challenging to alter for improved data collection

- sustainability of data sources for monitoring purposes means that there is a need to ensure that the data/questions on which the indicators and measures are based continue to be included in the national data collection systems.  The indicators have been based on currently available sources.

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[13] Note also that in a few instances the upper age of an indicator has been extended to ensure alignment with an existing national indicator.

A further challenge in developing the indicators has been ongoing debate about what are the necessary and sufficient elements that constitute and contribute to mental health and defining the underpinning constructs and domains (see Table 1 section 2.1 Indicator framework). In many cases there is no consensus on mental health outcomes (especially for mental wellbeing), and there is no easy way of distinguishing between cause and effect. A pragmatic stance has, therefore, being taken to select indicators that are essential for assessing population mental health and:

- are relevant for children and young people
- have a clear and robust relationship to mental health, and
- reflect desirable aspirations for the population.

## 1.12 Who are the indicators for?

The primary audience for these indicators is policy makers, planners and others with responsibility at a national or local population level for the mental health of children and young people in Scotland. As such, the focus is on the development of **national** indicators for the Scottish population. The context of mental health is extremely broad. The indicator set is therefore similarly broad, which means that it will be of interest to a wide range of policy areas - especially children, early years and education - in addition to health and mental health.

Although the indicator set has been developed for the national level, it also has local utility. There is a desire for local mental health indicators to assist in outcome planning and the national indicators form sets from which colleagues responsible for a sub-national population can select those relevant to their needs. Local mental health indicators should be established on the basis of what is important locally, matching the definitions used in the national children and young people's mental health indicator set to ensure comparability.

To date examples of local use of the adult indicator set includes:

- local mental health profiles – *A profile of mental health and wellbeing in Greater Glasgow & Clyde Glasgow Centre* produced by the Glasgow Centre for Population Health (Shipton and Whyte, 2011). This used the adult indicators and supplemented these with local data to create some additional locally specific appropriate indicators
- informing local strategy – NHS Ayrshire and Arran
- identifying current contributions to mental health improvement (contributing to work on logic modelling), identifying gaps and raising awareness of the wider determinants of wellbeing – Dundee council
- strengthening the link between the determinants (key influences/drivers) of mental health and interventions; people are clear about what influences mental health and can then identify their own contribution and where they can best target future efforts
- informing development of Single Outcome Agreement indicators

Although data for the national indicators have been drawn from national sources which allow as much sub-national disaggregation as possible, disaggregation to the local geographies required is often limited. In instances where national data for an indicator cannot be disaggregated to the required sub-national level, there may be two options: local boosts to

the relevant national surveys could be prioritised or the relevant questions/scales, used for the national indicators, could be used in surveys conducted locally.

## 2. Indicator Framework and Indicators

### 2.1 Indicator framework

The framework for the children and young people's mental health indicators was developed by making appropriate modifications to the framework developed for adult mental health, to allow continuity with the adult mental health indicator set.[14]   Within this framework, the indicators are structured under constructs (categories) of two types (Table 1):[15]

1. High level constructs of mental health status – outcome measures
2. Contextual constructs – covering the contextual factors (the risk and protective factors for and the consequences of, mental health).

The contextual constructs are themselves structured into 5 domains: Individual, Family, Learning Environment, Community and Structural.  Some of the constructs overlap with one another and this is highlighted were appropriate in this report.

**Table 1:  Framework for the indicators (number of indicators)**

| High Level Constructs | | | | |
|---|---|---|---|---|
| Mental wellbeing (4) | | | Mental health problems (11) | |
| Contextual Constructs | | | | |
| **Individual** | **Family** | **Learning environment** | **Community** | **Structural** |
| Learning and development (2) | Family relations (7) | Engagement with learning (3) | Participation (4) | Equality (5) |
| Healthy living (7) | Family structure (4) | Peer and friend relationships (7) | Social networks (1) | Social inclusion (8) |
| General health (3) | Parental healthy living (5) | Educational environment (5) | Social support (1) | Discrimination (3) |
| Spirituality (1) | Parental health (5) | Pressures and expectations (5) | Trust (3) | Physical environment (5) |
| Emotional intelligence (1) | | | Safety (1) | Violence (3) |
| Life events (2) | | | | Culture (3) |

As noted in Chapter 1, in the development of this framework and the indicators, current policy, data, the evidence-base, the views of children and young people, expert-opinion, theory, the findings from the consultation process and other national indicator sets were taken into account.

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[14] Alternative frameworks were presented to delegates at an initiation event on 21st April 2008 for discussion as to which or a combination of which would be best.  No one framework was unanimously chosen but there was a clear sense that delegates thought that continuity with the adult indicators framework would be beneficial (Parkinson, 2008).

[15] Where a construct refers to a categorising conceptual element, see *Establishing a core set of national, sustainable mental health indicators for adults in Scotland: Rationale paper* (Parkinson, 2007a).

## 2.2 Exclusions from the framework

Readers may consider that some important areas have been omitted from the framework. Advisory group discussions noted the importance of several factors to children and young people's mental health which due to pragmatic reasons are not included in the framework. It is, however, important to document these so that their significance to children's mental health is not overlooked, for example:

- genetic endowment/vulnerability - Whilst it is recognised that this is an important area impacting on mental health (Jenkins, 2008; Kirkwood *et al.*, 2008; Thapar and Rutter, 2008), indicators have not be established for this construct area, as it was considered that policy has no direct means of influencing or acting on this

- vulnerable sub-groups of children and young people – The indicator set is designed for the general population of children and young people and as such does not include indicators that are specific for very particular circumstances of certain sub-groups of children and young people, for example, looked after children. Vulnerable groups of children and young people may have particular experiences of mental health and or associated contextual factors which can nonetheless be captured using the indicator set. As noted in section 1.9 Child development, resilience and mental health, the views on the draft framework were obtained from some vulnerable groups of children and young people through the consultation process and included in shaping the final framework and indicator set (Elsley and McMellon, 2010). Analysis of all the indicators by protected characteristics under the Equality Act (2010) and other dimensions of equality, where data exists, is, however, included in the indicator set, which will identify any inequalities in the indicators by certain vulnerable sub-groups.

## 2.3 Indicator set

The full indicator set is listed in Appendix 3 and the data sources, questions and scales which are used to obtain the data for them in Appendix 5. They are drawn from both administrative and survey data. These data sources were considered to be robust enough, of sufficient quality and to meet the following criteria, making them suitable for monitoring purposes:

- national coverage and representativeness[16]
- sufficient sample size to allow estimates of sufficient precision for monitoring changes
- relevant and clearly interpretable
- collected routinely for the same age group (i.e. not dependent on ad-hoc research or specific cohort studies)[17]
- suitable frequency of data collection.

In total the indicator set contains 109 indicators (one of which, equality analysis, involves analysing the other indicators by dimensions of equality). Some of these indicators have multiple measures because they use several data sources to enable reporting for different age groups, or for reporting on different aspects of the indicator.

An aim of the work was to avoid restricting the indicator set by data availability. As a result, although current data availability significantly shaped the indicators, there are 5 indicators

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[16] See comment in section 1.11 Rationale, boundaries and challenges to the indicators work.
[17] Note that longitudinal surveys, such as the Growing Up in Scotland study, were not considered suitable as a monitoring data source as they do not fulfil this criteria.

which are not fully supported by currently available national data and 35 indicators which are not supported at all (these data-less indicators and measures are highlighted in italics in the tables of indicators in this report). Therefore further development is recommended on data collection in these areas. Recommendations for specific data collection for data-less indicators are included in the relevant construct sections in Chapter 3 and Appendix 6.

Individuals may find that an indicator is included in the framework under a different construct to the one that they had expected. This is likely because certain constructs overlap and other configurations are possible. Main overlaps between constructs are noted in Chapter 3. The important thing overall, however, is that the indicators essential to assess the mental health and its context for children and young people are contained within the framework.

It is also recognised that not all construct areas and indicators are equal in terms of importance of their impact on the mental health of children and young people. No attempt has been made, however, to rank or weight the constructs or indicators due to the limitations of the current evidence-base (see Chapter 3), which means that accurate and appropriate weightings cannot yet be established. In addition, while the indicators have arisen from a process taking a population evidence-base perspective it is recognised that at an individual level there will be individuals for whom a risk factor may not actually pose a risk to their mental health (see section 1.3 Child development, resilience and mental health). It is also acknowledged that the indicators do not act in isolation, although for monitoring by the indicator set the indicators are assessed on an individual basis.

## 2.4 Continuing work

The production of an indicator set is not, however, the end point but requires ongoing commitment to their reporting, maintenance, updating and revision as data sources and the evidence-base evolve. Ensuring sustainability and seeking to influence data sources to improve mental health data collection and fill data gaps is also essential. Additionally, to capitalise fully on the indicators their utility at a local level also needs consideration and support, so that their full potential can be exploited. This is especially important in view of a current greater focus on outcomes planning, which has increased the need for local areas to identify local indicators for mental health. These issues are relevant to both the adults and children and young people's indicator sets. Discussion has occurred with the Scottish Government Mental Health Division and agreement reached, noted below, as to the future agenda for the indicators.

### 2.4.1 Reporting on the indicators – data reports

The analysis of the data for the indicator sets is an activity for which the ScotPHO collaboration is the appropriate body. Within this collaboration, this activity has fallen on the NHS Health Scotland team. To date the adult indicator set was reported on in February 2009 and an update will be published imminently. With the establishment of the children and young people's indicator set work will soon commence on a data report for these with completion anticipated in 2013. Further updates for the data reports will be made every four years.

The contextual factors are likely to vary by socioeconomic status and this is likely to create inequalities in mental health. It is expected that there will be differences in the experience of

mental health and the factors that influence it by equality groups, by markers of inequalities and by rurality and so future data reports will seek to analyse available data by these markers wherever possible.

### 2.4.2 Maintenance of the indicators

Maintaining the existing indicators covers two aspects:

1. sustainability - survey managers of the national surveys need to remain aware of the use of their data for the mental health indicators.  Whilst relationships have been established with survey managers throughout the development of the indicators, survey managers change regularly, meaning that unless new relationships are established, it is possible that future survey managers may not be aware that specific data/questions from their survey are used for the mental health indicators and that there is a policy need to retain these in their survey.  This is especially pertinent when survey questionnaires come up for review.  It is therefore important that successive survey managers are made aware of the use of their survey for the indicators.

   Connected to this, questionnaire reviews need to be actively engaged with for the addition of new questions to surveys, in addition to seeking question retention.  To date requests for questions on which the mental health indicators are based have been successful.  This success has relied on a significant amount of work to develop proposals which outline the case for the new data and contain supporting statements from several policy areas and professionals etc.  Future engagement with survey reviews will be required.

   To this end the Scottish Government Health Analytical Services Division (ASD) will ensure, as far as possible, that the national surveys will continue to collect data included in the indicators.

2. updating/revising the indicators, if required - as the evidence-base improves and the nature, direction and magnitude of the relationship between personal, social and structural factors and mental health become better understood, so the indicators and their data sources may need adjusting.  It is essential that this occurs if required.

   The indicators will also need to adapt to secular changes to questions in the source national surveys and changes in the methodology and samples of the national surveys.  A 'survey efficiency project' was recently undertaken by the Scottish Government to improve the way survey data are collected and delivered.  This has led to some changes from 2012 in the main national household surveys, which include changes in sample size that could impact on the precision of the national estimates in the data used for the indicators (Scottish Government, 2011b).  These changes will not have an impact on the first data report but are likely to in the future and any impact will need to be assessed in due course.

   Additionally, the Scottish Health Survey recently underwent a questionnaire review, with which the *Indicators of Mental Health Programme* engaged.  As a result, WEMWBS is to be administered to those aged 13 to 15 years in the survey from 2012, in addition to those aged 16 years and above.  Minor changes, such as changes in some questions to align with a harmonised question set to be used in all the major Scottish Government

household surveys, may impact on some of the children and young people's mental health indicators (Scottish Government, 2011c). Of particular note is the change from the use of the CAGE questionnaire to assess alcohol dependency to the use of the AUDIT tool. This will impact on two of the children and young people's mental health indicators, which will be revised to reflect this change when the data become available.

As the reports are updated pragmatic decisions for necessary revisions to the indicators can be made as necessary with any changing evidence and data etc.

### 2.4.3  Improving data for the indicators, including filling data gaps

The children and young people's indicator set contains many data-less indicators/measures for which there are associated recommendations (Appendix 6), far too many to seek to gain new data for all in one go. These have therefore been prioritised by the Advisory Group and further assessed as to whether a suitable measurement tool and data improvement initiative already exist (as identified in the course of the indicators work) for collecting the required data or whether further work is required to define the construct and/or indicator (Appendix 6).

Work is required to address the essential data gaps and to link with the existing data improvement initiatives so that these can be capitalised on. Working with other policy areas on mutual data needs increases the likelihood of filling many of the data gaps. Further discussions are required between Scottish Government Health ASD and NHS Health Scotland around the data-less indicators but it has been agreed that Health ASD would undertake to co-ordinate discussions where data are required in national surveys or routine data collected by the Scottish Government.

### 2.4.5  Support for local use

As noted in section 1.12 Who are the indicators for?, although the indicator set has been developed for the national level, it has local utility and local needs for indicators are understood. The vision is that the national mental health indicators form sets from which local colleagues can select those relevant to their needs. However, feedback from some delegates at the event to launch the children and young people's mental health indicator set indicated a desire for support and guidance from NHS Health Scotland for local use of the indicators (Parkinson, 2012). This was seen as beneficial from two perspectives:

1. generally supporting with the understanding of how the indicators are relevant in a sub-national context
2. helping manage the size of the indicator set, which was seen as potentially burdensome. Connected to this were suggestions to:
   - prioritise some indicators over others to support local need/activity
   - create a nationally recommended minimum data set
   - provide direction on what indicators to focus on.

It is envisaged that this support will be provided through NHS Health Scotland's Mental Health Improvement Programme's local engagement work. The engagement activity provided by this programme is reactive to the needs of local areas.

## Recommendations

### Reporting on the indicators

The national mental health indicators for children and young people should be reported on every four years to track progress and change over time.

ScotPHO is the most appropriate body to report on the indicators and, within this collaboration, NHS Health Scotland will fulfil this task.

### Updating the indicators

The indicators should be updated as required to reflect advances in the evidence-base and changes in the data sources.

As the evidence-base improves and the nature, direction and magnitude of the relationship between personal, social and structural factors and mental health become better understood, so the indicators may need amendment. Furthermore, the data sources available to populate the indicator set are likely to change over time and the indicator set will need to be adjusted to account for this. It is important that survey managers of the national surveys remain aware of this important use of their data.

### Wider use of the indicators

Local colleagues should look to utilise and adapt the indicators to inform local work and report on local outcomes.

While developed as national indicators, the national mental health indicators form a set from which local colleagues can select those relevant to their needs. Where possible, data for the national indicators have been drawn from national sources which allow as much sub-national disaggregation as possible. However, many of the data sources cannot provide data at the sub-national geographies required and there may be a need for the use of other local data sources or for new local data collection. For the latter, it is suggested that the questions and scales used in national surveys for the national indicators be used, thus matching the definitions of the national indicators to ensure comparability.

### Improved data collection for the assessment of mental health and its context

It is recommended that data be collected in routine national data collection systems for indicators and measures for which there is currently no suitable national data source that could be used for monitoring purposes.

A full recommendation for each data gap identified in the indicator set is listed in the appropriate construct (indicator) section and the full list of recommendations is presented in Appendix 6. In many instances colleagues working in other policy areas desire similar new or improved data. There are, therefore, clear overlaps in data requirements which can be capitalised on and opportunities to work with others seeking data improvement should be identified. Current data improvement initiatives and question(s) and scales that could be used to collect the required data or as a starting point for development and which were noted during the course of the children and young people's mental health indicators project, have been identified in appropriate recommendations but others will exist and these opportunities should also be identified and explored.

# 3. Rationale for the Constructs, Working Understandings and Indicators

This section sets out the rationale for the inclusion of each of the constructs (and hence the indicators) under the framework for the indicators (Table 1 section 2.1 Indicator framework). This includes an overview of the evidence-base for the constructs and the indicators, primarily as presented in the consultation document of 2010 with revisions and additions where appropriate to reflect changes in the constructs and indicators (Parkinson, 2010a, 2010b).  The evidence-base has been generated from literature through a snowballing process, aided by the Advisory Group and informed by the review of what children and young people think impacts on their mental health and consultation comments (Shucksmith *et al.*, 2009; Elsley and McMellon 2010; Parkinson, 2010b).  It is important to appreciate the vast literature for the evidence-base for these indicators and that what is presented is not a systematic review of this extensive literature.  It is, however, believed that it will sufficiently convey an adequate rationale for the constructs and indicators.  As discussed below, the research-base appears to be more solid for some construct areas than for others and the literature identified for certain constructs is sparse.

Also included for each construct is a working understanding of the construct, a table of the indicators for that construct, any related recommendations, and a further table of relevant indicators/outcomes from the following key national indicator sets, which are of direct relevance or alignment to the children and young people's mental health indicators:

- Adult Mental Health Indicators Set
- Child Poverty Act 2010 – Child Poverty Measure
- Curriculum for Excellence
- Early Years Framework
- Equally Well
- Getting it Right for Every Child (GIRFEC) SHANARRI Indicators (Safe, Healthy, Active, Nurtured, Achieving, Respected, Responsible, Included)
- National Performance Framework
- ScotPHO Children and Young People Health and Wellbeing Profiles 2010
- Single Outcome Agreement Local Outcome Indicators.

## Limitations of the evidence-base

There are several limitations, including methodological and conceptual ones, to the current evidence-base for mental health.  These include:

- a scarcity of, or equivocal evidence for, some areas of the evidence-base
- the use of different terminologies, definitions and means of assessing mental health in studies, which makes it hard to draw clear conclusions.  As much as possible the terms mental health problems and mental wellbeing have been used in the following sections, although in certain places the terminology used in the original papers is presented
- a lack of longitudinal studies that leads to uncertainty about the direction of causality.  A lot of the evidence cited in the following rationales comes from cross-sectional studies, which can only indicate associations
- few suitable studies in some areas of the evidence-base, and in some cases, gaps in

evidence relating to children and young people specifically, mean that generalisations and extrapolations have to made from literature on adult mental health in some instances

- the majority of the evidence-base coming from studies assessing factors that affect mental health problems rather than mental wellbeing, it is unknown if these are necessarily the same
- studies controlling for confounding variables to differing extents.

It is important to note that the quality and quantity of the evidence varies and there is a considerable need for further research on the social determinants of both mental health problems and especially mental wellbeing. More research is needed, including further analyses of existing datasets, in order to investigate in greater detail factors which are associated with mental health and to start addressing these current limitations in the evidence-base. Longitudinal studies are also essential to examine the dynamics of associations identified in cross-sectional studies and to help establish whether these are coincidental or causal, and the direction of causality of significant relationships.

## Recommendations

### Analysis of existing datasets

Continued analyses of existing datasets are required, and especially datasets which include measures of mental wellbeing.

Existing datasets represent an under-utilised resource for furthering the evidence-base about the factors that influence mental health. With the inclusion of the Warwick-Edinburgh Mental-Well-being Scale (WEMWBS) in recent surveys, these datasets can contribute to determining whether risk and protective factors differ for mental health problems and mental wellbeing.

### Longitudinal studies

Longitudinal studies are required to help investigate whether identified associations between mental health and key personal, social and structural factors are causal, confounding or coincidental.

It is especially important that mental wellbeing be assessed in longitudinal studies as currently the greater proportion of the mental health evidence-base relates to mental health problems.

## 3.1 High Level Constructs

### 3.1.1 Mental wellbeing

#### Working understanding

Mental wellbeing is a complex construct and there is continuing debate about its precise nature. It is conceptualised in various ways and it is unlikely, with current understanding, that any one model will meet universal approval. Added to this, the term mental wellbeing is often used interchangeably with positive mental health, which in turn may be represented as wellbeing, and in the education field 'emotional and social wellbeing' is a frequently used term.[18] Further, the majority of the literature on mental wellbeing comes from an adult perspective. However, mental wellbeing continues to develop and change over the life course but more rapidly in childhood.

Despite the wide range of different definitions of, and terms to describe, mental wellbeing, it is now largely agreed that mental wellbeing encompasses more than the absence of mental health problems and has two distinct components covering experience and functioning (Ryan and Deci, 2001; Keyes *et al.*, 2002; Huppert *et al.*, 2005; Blair *et al.*, 2010):

- subjective experience of affect (happiness) and life satisfaction (often referred to as emotional or subjective wellbeing, also known as the hedonic perspective)
- psychological functioning covering concepts such as confidence, energy, clear thinking, creativity, self acceptance, personal growth and development, purpose in life, competence, autonomy, good relationships with others and self realisation (often referred to as psychological wellbeing, also known as the eudaimonic perspective). This covers a wide range of cognitive aspects of mental health and clearly links to social wellbeing.

Mental wellbeing therefore refers to a range of emotional and cognitive attributes associated with a self-reported sense of wellbeing and/or resilience in the face of adversity (for the elements of mental wellbeing used in the adult mental health indicators work see Appendix 2). It is more than the absence of mental health problems and may also be present in children and young people with a mental illness diagnosis.

The Mental Health Foundation has suggested that children who are mentally healthy will have the ability to:

- develop psychologically, emotionally, creatively, intellectually and spiritually
- initiate, develop and sustain mutually satisfying inter-personal relationships
- use and enjoy solitude
- become aware of others and empathise with them
- play and learn
- develop a sense of right and wrong
- resolve (face) problems and setbacks and learn from them (St John *et al.*, 2005).

The literature relating to concepts of mental wellbeing in children suggests subtle distinctions from the concept as related to adults, although further research in this area is warranted.

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[18] Throughout the children and young people's indicators work the term mental wellbeing has been used, except in some instances when the terminology adopted by others has been used instead.

Eudaimonic and hedonic perspectives of mental wellbeing also appear to fluctuate over the life course (Ryan and Deci, 2001; Ryff *et al.*, 2004; Blanchflower and Oswald, 2008). For instance, it has been demonstrated that some elements of eudaimonic wellbeing show patterns based on age (Ryff and Keyes, 1995) and that global life satisfaction tends to decline slightly with the onset and progression of adolescence (Proctor *et al.*, 2009).

The significance of inter-personal relationships to mental health is widely recognised - academics writing from different perspectives on mental wellbeing all appear to agree on the importance of positive inter-personal relationships. The capacity for mutually satisfying and enduring relationships has been identified as a key aspect of good mental health (World Health Organization *et al.*, 2004). The development of attachment in early life and maintenance of positive relationships with self, intimate others, and strangers are also held to be important determinants of mental wellbeing (Bowlby, 1969; Fonagy and Higgitt, 2000) and negative relationships characterised by a lack of respect, or by distrust may also be an important precipitating factor in violence and an independent predictor of mental health problems (Stewart-Brown, 2005) (see sections 3.2.5 Emotional intelligence, 3.3.1 Family relations, 3.4.2 Peer and friend relationships, 3.5.2 Social networks and 3.5.3 Social support).

Some definitions of children's mental wellbeing also include a spiritual dimension, and there is often overlap and conflation with purpose in life, whilst for others this is separate (van Dierendonck and Mohan, 2006; Blair *et al.*, 2010). This is an active area of debate and for the indicators work spirituality is treated as a separate construct that impacts on mental health (see section 3.2.4 Spirituality and Parkinson, 2007b). In the literature emotional intelligence is often seen as key for the mental wellbeing of children, although again some may include it within their definition of mental wellbeing for children (Blair *et al.*, 2010). As for spirituality, emotional intelligence is treated in the indicators work as a separate construct that impacts on mental health (see section 3.2.5 Emotional intelligence and Parkinson, 2007b). Definitions of children's mental wellbeing can also include a developmental dimension e.g. the capacity to develop emotionally, creatively, intellectually, and spiritually, appropriate to the age of the child, and the development of communication within the context of positive relationships. In the indicators set, however, development is included as a separate construct (see section 3.2.1 Learning and Development).

Children and young people themselves focus on happiness, feeling good about themselves, (including a positive body image), having energy, a sense of 'harmony or balance', getting on with and 'being good to' others. A sense of 'being normal' or 'fitting in' is also of profound importance to young people's own sense of mental wellbeing (Shucksmith *et al.*, 2009).

### Rationale
Interest in the concept of mental wellbeing has grown with the recognition that mental health is not only about the presence or absence of mental health problems and that everyone has mental health needs. The *Indicators of Mental Health Programme* has therefore taken mental health to cover both mental wellbeing and mental health problems, and evidence is accumulating for the existence of these two psychometrically distinct, but correlated, dimensions of mental health (see section 4.1.1 in Parkinson, 2007a and Peter *et al.*, 2010). There is also growing evidence for the importance of mental wellbeing to the mental health and health of individuals and the population (see section 4.2 in Parkinson, 2007a).

An individual's mental wellbeing can affect their trajectory through life.  For children, good mental wellbeing in childhood has important consequences for their development, social development and educational attainment, as well as helping to prevent mental health problems including behavioural problems in adolescence and later in life (Kuh *et al.*, 1997 and Graham and Power, 2003 cited in Blank *et al.*, 2008).  It can also affect physical health, as well as the development of a healthy lifestyle, and influence how well a child does at school (NICE, 2008 cited in Blank *et al.*, 2008).  Additionally, it affects the ability to cope with change, transition, life events and physical ill-health.  Mental wellbeing is thus very important during transition periods in childhood and especially in adolescence for transitions such as those from childhood into adulthood and from school into work (Jenkins *et al.*, 2008).

It is therefore important that both dimensions of mental health are covered by the indicators to allow a full assessment of the mental health of the children and young people of Scotland, and essential that indicator(s) of mental wellbeing are included in the Scottish indicator set.

## Indicators

| Mental wellbeing | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Mental wellbeing | • Mean score for 16 and 17 year olds on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS)[1]<br><br>• Mean score for S2 and S4 pupils on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS)[1, 2]<br><br>• *Assessment of mental wellbeing of children aged 8 to 13 years old* [R]<br><br>• *Assessment of mental wellbeing of children at entry to P1* [R, 2]<br><br>• *Assessment of mental wellbeing of children aged from 24 to 30 months* [R] | • Scottish Health Survey<br><br>• Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS)<br><br>• *No suitable data source*<br><br>• *No suitable data source identified*<br><br>• *No suitable data source identified* |
| Life satisfaction | • Mean score of how satisfied 16 and 17 year olds are with their life as a whole nowadays[1]<br><br>• Mean score for P7, S2 and S4 pupils on an adapted Cantril ladder (rating of whether an individual perceives they have the best or worst possible life for them at the moment)[1, 2] | • Scottish Health Survey<br><br>• Health Behaviour in School-aged Children Survey (HBSC) |
| Happiness | • Percentage of P7, S2 and S4 pupils who feel very happy with their life at present[2] | • HBSC |
| Pro-social behaviour | • Percentage of S2 and S4 pupils with a 'normal' score on the pro-social scale of the Strengths and Difficulties Questionnaire (SDQ)[2]<br><br>• Percentage of 4 to 12 year olds with a 'normal' score on the pro-social scale of the Strengths and Difficulties Questionnaire (SDQ)[3] | • SALSUS<br><br>• Scottish Health Survey |

[1] Where an indicator is based on the mean, the mean will be used if the data are normally distributed; if not then the median is more appropriate. The appropriateness of the mean will be assessed on analysis of the data.

[2] P1, P7, S2 and S4 pupils are circa 5, 11, 13 and 15 year olds, respectively.

[3] Data collected by parental/guardian assessment.

[R] Indicates that there is a recommendation attached to the indicator.

## Recommendations

### Mental wellbeing for children aged 8 to 13 years old

A mental wellbeing scale to cover children aged 8/9 up to 13/14 years old should be identified or developed and included in routine national surveys to obtain data suitable for the assessment of mental wellbeing of children aged 8 to 13 years old.

There is a lack of suitably validated scales to measure mental wellbeing in children under 13 years of age; the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) is valid for assessing the mental wellbeing of children aged 13 years and above but is not suitable for younger children. There is therefore a need for a mental wellbeing scale which would cover children aged 8/9 up to 13/14 years old. The Stirling Children's Wellbeing Scale for 8 to 13 year olds has recently been developed, using WEMWBS as a starting point, and shown to be valid and reliable (Carter *et al.*, paper in preparation; for information email childrenswellbeingscale@gmail.com). The scale has also been found to be suitable for older children allowing comparisons between a greater age range of children. This scale offers potential and its utility for inclusion in national surveys should be fully assessed and any additional validation required considered.

### Mental wellbeing of children in the early years of their life: aged from 24 to 30 months and on entry to P1

Means of assessing mental wellbeing in the early years should be developed and included in routine national data collection systems in Scotland, specifically to obtain data suitable for children aged from 24 to 30 months and on entry to P1.

A suitable scale designed to assess mental wellbeing of the early years does not currently exist for this age group. Although there are scales designed to assess related, overlapping concepts these have not been developed with mental wellbeing assessment in mind. Development of a developmentally appropriate carer-report scale or assessment method to assess mental wellbeing in the early years therefore needs to be considered. There is opportunity following the review of Health for All Children (Hall 4) (Scottish Government, 2011d), which included a recommendation for the re-introduction of a 24-30 month assessment for all children. It is suggested that the minimum assessment includes coverage of personal, social and emotional development (including behavioural issues). It is important that the measure focuses on the positive. Through the Child Health Systems Programme– School all children are offered a health check on entry to primary school. This could be used to collect data on mental wellbeing at entry to P1.

## Other key national Scottish indicators

| Mental wellbeing | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| **Mental wellbeing** | |
| Adult Mental Health Indicator Set | • Mental wellbeing – Mean adult score on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS), Scottish Health Survey |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Mental and emotional wellbeing |
| Early Years Framework | • Child mental health, including children and young people's perception of their emotional health and wellbeing, their perception of being listened to and self-esteem, identity and belonging, Scottish Government, Scottish Health Survey |
| Equally Well Early Years Outcome EY6 | • Increased children's mental wellbeing/resilience |
| Equally Well Early Years Outcome EY8 | • Improved health and wellbeing of looked after children |
| GIRFEC | • SHANARRI Indicators – Healthy |
| National Performance Framework | • Improve mental wellbeing - Mental wellbeing derived from average score on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) of adults aged 16+ years, Scottish Health Survey |
| Single Outcome Agreement Local Outcome Indicator (forthcoming 2013) | • Short version of the Warwick-Edinburgh Mental-Wellbeing Scale score, Scottish Household Survey |
| **Life satisfaction** | |
| Adult Mental Health Indicator Set | • Life satisfaction - Mean adult score of how satisfied individuals are with their life as a whole nowadays, Scottish Health Survey |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Mental and emotional wellbeing |
| GIRFEC | • SHANARRI Indicators – Healthy |

### 3.1.2 Mental health problems

**Working understanding**

The construct mental health problems covers a continuum from symptoms that meet the criteria for clinical diagnosis of mental illness[19] (emotional problems, conduct problems and hyperkinetic disorders being the most common), to symptoms at a sub-clinical threshold which interfere with emotional, cognitive or social function.

**Rationale**

Mental health problems are a major public health concern and account for a large proportion of the disease burden in young people (Patel *et al.*, 2007).[20]  Children's mental health problems have consequences both for the family and the child.  Most begin during youth (12 to 24 years of age), with many continuing into adulthood and are often recurrent or long-term in nature, indeed it has been estimated that half of all lifetime mental health problems beginning before 14 years of age (Fryers, 2007; Patel *et al.*, 2007; Jané-Llopis and Braddick, 2008; Department of Health, 2009).  In addition, since childhood or adolescence is when most individuals develop key life skills, which set them up for adulthood, the consequences of disruption of the acquisition of these by mental health problems at this stage of life can extend into adulthood (Patel *et al.*, 2007).  The consequences can include low academic achievement, early school leaving, relationship difficulties, an increased likelihood of unwanted pregnancy/teenage parenthood and impaired parenting skills, substance misuse, impacts on employment and productivity, social exclusion, anti-social behaviour and crime (Jenkins *et al.*, 2008).  Furthermore, childhood mental health problems not only impact on an individual's adulthood but can also in turn impact on their own children leading to recurring cycles.

Surveys in 1999 and 2004 of children and young people aged 5 to 15/16 years living in private households in Great Britain indicated that approximately one in ten experience some form of a clinically recognisable mental health problem at any one time (Meltzer *et al.*, 2000; Green *et al.*, 2005).  Although children and young people can be affected by many different mental health problems, the most common groups are:

- emotional disorders such as anxiety, depression and obsessions
- conduct disorders characterised by awkward, troublesome, aggressive and antisocial behaviours
- hyperactivity disorders involving inattention and over-activity.

In the 2004 survey, four per cent of children had an emotional disorder (such as anxiety, depression and obsessions), six per cent a conduct disorder (characterised by awkward, troublesome, aggressive and anti-social behaviour), two per cent a hyperkinetic disorder (involving inattention and over-activity), and one per cent a less common disorder (which was defined as including autism, tics, eating disorders and selective mutism).  Some children (two

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[19] Defined through recognised classifications such as the International Classification of Disease (ICD10) or the Diagnostic Statistical Manual Version IV (DSM IV).

[20] It is important to note that statistics often do not portray the full scale of extent of mental health problems in the population.  In some instances data on mental health problems are lacking, especially so for certain mental health problems, and in many instances, children are not identified for referral to appropriate services.

per cent) had more than one type of disorder.  For Scotland (although the sample size was small, n = approx. 600), 8.3% had any mental health problem (2.5% emotional, 5.5% conduct and 1.6% hyperkinetic) (Green *et al.*, 2005); a similar result of eight percent for children aged 4 to 12 years was found in the Scottish Health Survey 2008/2009 combined dataset (n = approx. 2,300) (Corbett *et al.*, 2010).  Statistically significant odds ratios for the correlates of the child having any mental health problem (compared with having none) include age (11 to 15 year olds being more likely to have common mental health problems than 5 to 10 year olds) and sex (boys being more likely than girls) (Green *et al.*, 2005).

Severe alcohol and drug misuse are classified as mental health problems when they meet the criteria in the WHO International Classification of Diseases (ICD-10) under 'mental and behavioural disorders due to psychoactive substance use' (www.who.int/classifications/apps/icd/icd10online/).  This category includes dependency syndromes.  Addictions are common, including amongst young people (Foresight, 2008), and alcohol and drug use is not uncommon among children and young people in Scotland (Black *et al.,* 2011).  Of note, of those who presented themselves to drug treatment services in 2010/11, 82% reported that they started using illicit drugs under the age of 20 years (44% under the age of 15 years) and 45% that their problem drug use started under the age of 20 years (8% under the age of 15  years) (ISD Scotland, 2012).

Suicide is a leading cause of unnecessary death in young people (Patel *et al.*, 2007).  Whilst it is recognised that there is some debate about the use of suicide as an indicator of mental health problems, the relationship between mental health and suicide being complex and influenced by many factors, it is none the less considered important as an indicator.

Young people also have a high rate of self-harm with the mean age of onset around 12 years old (Brophy, 2006; Patel *et al.*, 2007).  Evidence suggests that younger people are more likely to engage in acts of self-harm than adults and that rates of self-harm in the UK are higher than anywhere else in Europe (Royal College of Psychiatrists, 2010: Scottish Government, 2011e).  Self-harm is understood as a behavioural response to, or reflection of, emotional and psychological need.  The prevalence of self-harm is thus an important indicator of profound mental distress, masking underlying emotional and psychological trauma, as well as being a risk factor for suicide.  It has been considered that monitoring of population self-harm rates may provide a useful proxy of mental distress (Hawton *et al.*, 2003; World Health Organization *et al.*, 2004).

Eating disorders can occur at any age but frequently begin in the teenage years (Adi *et al.*, 2007a; Royal College of Psychiatrists' Public Education Editorial Sub-Committee, 2008). They can have a huge impact on an individual's relationships with family and friends through social withdrawal and can interfere with performance at school.  The causes of eating disorders are not yet fully understood, although many factors may be influential, including: social pressures arising from Western culture and the media; control; puberty, family; low self-esteem; and genes.

## Indicators

| Mental health problems | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Common mental health problems | • Percentage of 16 to 19 year olds who score 4 or more on the General Health Questionnaire-12 (GHQ-12) (a score of 4 or more indicates a possible mental health problem over the past few weeks) | • Scottish Health Survey |
| Emotional and behavioural problems | • Percentage of S2 and S4 pupils with a 'borderline' or 'abnormal' total difficulties score on the Strengths and Difficulties Questionnaire (SDQ)[1]<br><br>• Percentage of 4 to 12 year olds with a 'borderline' or 'abnormal' total difficulties score on the Strengths and Difficulties Questionnaire (SDQ)[2]<br>• *Assessment of emotional and behavioural problems of children aged from 24 to 30 months* [R] | • Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS)<br>• Scottish Health Survey<br><br>• *No suitable data source identified* |
| Emotional symptoms | • Percentage of S2 and S4 pupils with a 'borderline' or 'abnormal' score on the emotional symptoms scale of the Strengths and Difficulties Questionnaire (SDQ)[1]<br>• Percentage of 4 to 12 year olds with a 'borderline' or 'abnormal' score on the emotional symptoms scale of the Strengths and Difficulties Questionnaire (SDQ)[2] | • SALSUS<br><br><br>• Scottish Health Survey |
| Conduct problems | • Percentage of S2 and S4 pupils with a borderline' or abnormal' score on the conduct problems scale of the Strengths and Difficulties Questionnaire (SDQ)[1]<br>• Percentage of 4 to 12 year olds with a 'borderline' or 'abnormal' score on the conduct problems scale of the Strengths and Difficulties Questionnaire (SDQ)[2] | • SALSUS<br><br><br>• Scottish Health Survey |
| Hyperactivity/ inattention | • Percentage of S2 and S4 with a 'borderline' or 'abnormal' score on the hyperactivity/inattention scale of the Strengths and Difficulties Questionnaire (SDQ)[1]<br>• Percentage of 4 to 12 year olds with a 'borderline' or 'abnormal' score on the hyperactivity/inattention scale of the Strengths and Difficulties Questionnaire (SDQ)[2] | • SALSUS<br><br><br>• Scottish Health Survey |
| Sadness | • Percentage of P7, S2 and S4 pupils who felt sad quite often, very often or always in the last week[1] | • Health Behaviour in School-aged Children Survey (HBSC) |
| Alcohol dependency | • Percentage of 16 to 19 year olds who score 2 or more on the CAGE questionnaire (a score of 2 or more indicates possible alcohol dependency in the previous 3 months) | • Scottish Health Survey |
| Drug-related | • Hospital patients per 100,000 children and young people aged 19 years and under discharged in the | • ISD Scotland, |

| disorders | past year for mental and behavioural disorders due to psychoactive substance use (general acute and psychiatric hospitals)[3] | SMR01/04 |
|---|---|---|
| Suicide | • Deaths per 100,000 children and young people aged 19 years and under in the past year from intentional self-harm or by events of undetermined intent | • National Records of Scotland |
| *Self-harm [R]* | • *Incidence rate of intentional self-harm (self-poisoning or self-injury irrespective of the apparent purpose of the act, excludes self-harm through substance misuse, accidental self-harm and self-harm related to eating disorders) in the past year in children and young people aged 17 years and under[4]* | • *No suitable data source identified* |
| *Eating disorders [R]* | • *Prevalence of eating disorders in children and young people aged 17 years and under* | • *No suitable data source identified* |

[1] P7, S2 and S4 pupils are circa 11, 13 and 15 year olds, respectively.

[2] Data collected by parental/guardian assessment.

[3] Recent service changes from hospital-based to community-based treatment have affected the figures for SMR04 which means that retrospective SMR04 data are not suitable for trend analysis. These changes have largely settled down making prospective SMR04 data suitable to use. This indicator, however, remains sensitive to changes in clinical practice and service demands. This means that trends have to be interpreted with caution and care as changes in the trend may not necessarily reflect a change in population need.

[4] Self-harm can take many forms, the most common being cutting. The definition is taken from the Scottish's Government strategy on self-harm (Scottish Government, 2011e).

[R] Indicates that there is a recommendation attached to the indicator.

## Recommendations

### Emotional and behavioural problems of children aged from 24 to 30 months

A means of assessing emotional and behavioural problems of children aged from 24 to 30 months should be identified or developed and included in routine national data collection systems in Scotland.

Data suitable for monitoring emotional and behavioural problems of children aged from 24 to 30 months are currently not collected routinely nationally in Scotland. A suitable scale or assessment method may exist already. The suitability of existing scales or assessment methods needs to be determined and if necessary the development of a new one should be considered. There is opportunity following the review of Health for All Children (Hall 4) (Scottish Government, 2011d), which included a recommendation for the re-introduction of a 24-30 month assessment for all children. It is suggested that the minimum assessment includes coverage of personal, social and emotional development (including behavioural issues).

### Self-harm

More accurate data on the incidence and prevalence of self-harm amongst children and young people are required and opportunities to collect this routinely nationally should be explored.

Data on self harm could be obtained by the inclusion of a question(s) in a national population

survey as is the case for adults in the Scottish Health Survey. Questions used in the Office for National Statistics surveys of the mental health of children and young people in Great Britain (Green *et al.*, 2005) could offer insight and a starting point. It will also be important to determine the progress of, and link to, the Scottish Government's strategy on self-harm (Scottish Government, 2011e), which noted that it is not currently possible to assess prevalence and incidence of self-harm as it is unsafe to generalise from the main source of current data of hospital admission/discharge to the community, as hospital data do not reflect the true situation, especially for adolescents. Objective S08 of the strategy called for: 'Improvement of data in respect of self-harm in Scotland, building on existing data from hospital admissions and discharges, and reliable evidence-based data from other sources.... The Benchmarking work in mental health is now developing more detailed information regarding individuals who self-harm and access accident and emergency, acute and psychiatric hospital settings...'.

### Eating disorders

More accurate data on the incidence and prevalence of eating disorders amongst children and young people are required and opportunities to collect this routinely nationally should be explored.

Hospital discharge data for eating disorders exist for Scotland but represent only the most severe end of the illness spectrum. Therefore, to have a clearer picture of the problem, additional sources of data are necessary to capture the true incidence and prevalence nationally. No alternative sources of this data currently exist and opportunities to gather this data in the future should be pursued.

### Other key national Scottish indicators

| Mental health problems | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| **All the Mental health problems indicators** | |
| GIRFEC | • SHANARRI Indicators – Healthy |
| **Common mental health problems** | |
| Adult Mental Health Indicator Set | • Common mental health problems - Percentage of adults who score 4 or more on the GHQ-12, Scottish Health Survey |
| **Emotional and behavioural problems** | |
| Early Years Framework | • Child mental health, including children and young people's perception of their emotional health and well being, their perception of being listened to and self-esteem, identity and belonging, Scottish Government, Scottish Health Survey |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • Strengths & difficulties score – Total difficulties score, expressed as a mean (13 and 15 year olds combined), SALSUS |
| **Alcohol dependency** | |
| Adult Mental Health Indicator Set | • Alcohol dependency - Percentage of adults who score 2 or more on the CAGE questionnaire (a score of 2 or more indicates possible alcohol dependency in the previous 3 months), Scottish Health Survey |

| **Drug-related disorders** | |
|---|---|
| Adult Mental Health Indicator Set | • Drug-related deaths – Deaths per 1,000 adults (aged 16 and above) in the past year from 'mental and behavioural disorders due to psychoactive substance use', National Records of Scotland |
| **Suicide** | |
| Adult Mental Health Indicator Set | • Suicide - Deaths per 100,000 adults in the past year by intentional self-harm and by undetermined intent, National Records of Scotland |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • Deaths from suicide (inc. undetermined intent) – Deaths from suicide (age <25 years): 10-year total number and 10-year average directly age-sex standardised rate per 100,000 population per year, National Records of Scotland |
| ***Self-harm*** | |
| Adult Mental Health Indicator Set | • Deliberate self-harm - Percentage of adults who have deliberately harmed themselves but not with the intention of killing themselves in the past year, Scottish Health Survey |

## 3.2 Contextual Constructs - Individual

### 3.2.1  Learning and development

**Working understanding**

This construct covers the continuous process of learning and development that occurs outside the formal education system.  It importantly includes learning though informal, unstructured, play (what children and young people do when they follow their own ideas, in their own way and for their own reasons (Dobson, 2004)).

This construct overlaps with sections 3.2.2 Healthy living, 3.4.1 Engagement with learning, 3.6.2 Social inclusion and 3.6.4 Physical environment.

**Rationale**

For every child, development contains a sense of progression and of increasing complexity. The child becomes increasingly organised, integrated and more complex as an individual as he or she grows up.  Child development encompasses different areas, such as physical, cognitive, emotional and psychosocial development.  Although the developmental stages that a child follows are broadly age-related, it is accepted that there can be considerable variation in the progression of individual children.

It is increasingly recognised that child development can best be understood within an ecological framework where many different factors shape the developing child and the outcomes they experience (Aldgate *et al.*, 2006).  These influences widen out from the immediate and extended family to social relationships such as friendships networks, to schools, neighbourhoods and to wider societal and cultural forces (factors covered in many of the other constructs of the indicator set).  These factors can constrain or facilitate development.

There is good evidence that participating in learning is associated with a range of mental health benefits and also contributes to the adoption of healthy behaviours, although there is a need to distinguish between concepts like growth/development and participation in learning opportunities (see section 3.4.1 Engagement with learning and 3.6.2 Social inclusion). Learning through life has a critical role in unlocking a wide range of benefits, both for the individual and for society.  Three particular sets of immediate outcomes of learning are key:

- skills and competencies (cognitive skills, technical/vocational skills, resilience, beliefs about self and social and communications skills)
- social networks
- qualifications (Feinstein *et al.*, 2008).

Both formal and informal learning have a direct impact on mental wellbeing, protect against for example depression and help confer resilience to stress and adverse life events.  They also promote social inclusion and cohesion within society (Foresight, 2008).

For children with early developmental difficulties the effects on outcomes can be persistent. Evidence indicates that early developmental delays continue to impact on developmental outcomes, including cognitive outcomes, in later life.  For example, Bradshaw and Tipping

(2010) found that children who were reported by their parents to have delays in motor development and language development at age 3 years were more likely to display difficulties with their social, emotional and behavioural development at school entry. Research has indicated that pre-school children (including 5 year olds) with developmental delay show significantly higher rates of emotional and behavioural difficulties than their typically developing peers and these are unlikely to be transient effects (Emerson and Einfeld, 2010 and references cited therein). In the UK, however, this may be partially attributed to increased risk of exposure to adverse socio-economic circumstances.

Speech, language and communication are important for mental health. There is increasing evidence for a link between speech, language and communication needs and emotional and behavioural problems, and early difficulties can have lasting detrimental effects (references cited in I CAN, 2008; National Literacy Trust – Talk to Your Baby, 2010). Young children with speech and language impairments are at risk of continued communication problems and for associated cognitive, academic, behavioural, social and psychiatric difficulties. For instance, children with early language impairment have significantly higher rates of anxiety disorder in young adulthood than non-impaired children.

Play, which includes spontaneous and unpredictable playing and is important at all ages, is recognised as a very important means of learning and development for children and young people (Lester and Russell, 2007). For instance, Article 31 of the UN CRC recognises children's right to play (United Nations General Assembly, 1989). A review of the evidence on play indicated that it is an emotional endeavour allowing development of emotional flexibility, through the rehearsal of emotional responses in a safe environment, and that play represents a means to enhance a child's current level of subjective wellbeing (Lester and Russell, 2007). The evidence reviewed suggests that the process of playing provides children and young people with the opportunity to adapt to and best fit their complex physical and social environments, and to achieve a desirable state of (mental) wellbeing.

A key finding is that children's play can help build resilience (the ability/capacity that allows individuals to overcome or resist severe risks or chronic stress factors in the environment and thrive despite adversity and stress in their lives) thus contributing to mental wellbeing (see section 1.3 Child development, resilience and mental health). It has been asserted that where children cannot wilfully act out beliefs in their own agency and their future through play, depression will occur (Sutton-Smith, 2003 cited in Lester and Russell, 2007). The research indicates that play makes a significant contribution to developing resilience across a range of adaptive systems including:

- emotion regulation – deficits are associated with common emotional and behavioural difficulties, including poor adjustment to school, peer relations and social competence and depression, and play may provide a positive way of coping with anxiety
- pleasure and enjoyment and the promotion of positive feelings – positive emotions are associated with a decreased incidence of stress-related illness and children who report reduced subjective experience of positive affect are more likely to display affective disorders, including depression, and aggressive behaviour
- stress response systems and the ability to create and respond to uncertainty – based on the notion that challenge and risk are important developmental processes in play
- attachment to people and place.

It is the characteristics of self- and peer-led play (e.g. control, creativity, uncertainty, spontaneity, flexibility, novelty, routine, adaptiveness, non-productivity, imagination and 'as if' potential) which are important.  The emerging evidence suggests play, as a spontaneous, flexible and goal-less 'as if' behaviour, has a significant role in the development of the brain's structure and chemistry, which gives rise to emotional and physical health, (mental) wellbeing and resilience, as well as laying the foundations for cognitive functioning and social competence.  The recent trend to institutionalise play (supervised organised and purposeful play), however, means that time for children's own autonomous and imaginative play has been reduced.  Children place great emphasis on their ability to play with their friends in their immediate neighbourhoods and it is likely that failure to support this will impact on children's subjective assessment of mental wellbeing (Lester and Russell, 2007).  Play can also be linked to physical activity (see section 3.2.2 Healthy living) and engagement with the physical environment, especially greenspace (see section 3.6.4 Physical environment).

## Indicators

| Learning and development | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| *Play [R]* | • *Assessment of encouragement, support, and ability to access imaginative, spontaneous indoor and outdoor play*<br>• *Assessment of time spent in spontaneous play* | • *No suitable data source identified*<br><br>• *No suitable data source identified* |
| *Readiness for school [R]* | • *Assessment of readiness for school in P1 pupils, which covers cognitive functioning, communication (ability to understand and to use spoken language) and development[1]* | • *No suitable data source identified* |

[1] P1 pupils are circa 5 year olds.
[R] Indicates that there is a recommendation attached to the indicator.

## Recommendations

### Play

A means of assessing aspects of play, such as encouragement, support and the ability to access imaginative, spontaneous indoor and outdoor play as well as time spent by children and young people in spontaneous play, should be identified or developed and the data collected in a routine national data collection system in Scotland.

It is not currently known if there is a tool available to assess aspects of play identified as important for a mental health indicator (encouragement, support and the ability to access imaginative, spontaneous indoor and outdoor play as well as time spent in spontaneous play).  An assessment of the time spent by children and young people in spontaneous play and the various aspects of play, ideally collected in a national population survey, would inform this indicator set.  The suitability of existing scales or assessment methods needs to be determined and if necessary the development of a new one should be considered.  Play Scotland has recently developed Getting it Right for Play, a set of indicators and toolkit to help local authorities and community groups improve the design and provision of places and spaces for all children to play and spend their free time, feeling safe and confident, outside in

their neighbourhoods. The utility of the Play Scotland indicators for assessing, or for informing the development of suitable question(s) to assess, aspects of play required for the data-less mental health indicator, which could be subsequently adopted by national surveys, should be determined.

### Readiness for school

A means of assessing readiness for school when children enter school (P1) should be included in a routine national data collection system(s) in Scotland.

The Early Development Instrument (EDI) (www.offordcentre.com/readiness/) is currently being piloted in East Lothian to identify lessons that could be learned for whether it can be extended to the rest of Scotland. If the outcome of the pilot is favourable, and the Scottish Government decides to adopt it as a measure of school readiness, it should be considered for the data-less indicator of readiness for school, along with certain of its specific areas of assessment for indicators of cognitive functioning, development and communication.

### Other key national Scottish indicators

| Learning and development | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| *Play* | |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Physical activity and sport |
| Early Years Framework | • Percentage of parents who rate a range of play activities as 'very important', Growing Up in Scotland Survey[21] |
| Equally Well EY10 | • Children have more active lifestyles, access to green space and opportunities to play |
| GIRFEC | • SHANARRI Indicators – Active, Achieving |
| *Readiness for school* | |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Mental and emotional wellbeing |
| Early Years Framework | • Percentage of children scoring at or above the mean for their age on the British Abilities Scale (BAS), Growing Up in Scotland[21] |
| Early Years Framework | • Percentage of children displaying age-appropriate communication skills, Growing Up in Scotland Survey (parental)[21] |
| Early Years Framework | • Percentage of children who are physically, emotionally, behaviourally and cognitively ready for school at Primary 1, Growing Up in Scotland Survey[21] |
| GIRFEC | • SHANARRI Indicators – Achieving |

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[21] Note that this survey does not provide monitoring trends

### 3.2.2 Healthy living

#### Working understanding
Healthy living encompasses behaviours that influence mental health such as diet, physical activity, smoking, alcohol consumption, drug use and sexual health/relationships.

This construct overlaps with sections 3.2.1 Learning and Development and 3.6.4 Physical environment.

#### Rationale
This construct is based on the hypothesis that healthy lifestyle choices (i.e. health behaviours, notably physical activity, diet, smoking, alcohol consumption, drug use and sexual health/relationships) influence and are influenced by mental health. Mental health status is associated with risk behaviours at all stages of the life cycle. For instance, in young people depression and low self-esteem are linked with smoking, binge drinking, and unsafe sex (Patton *et al.*, 1998 cited in Herman and Jané-Llopis, 2005).

There is robust evidence for the general impact of physical activity and exercise on mental health, although not necessarily for a causal link (Etnier *et al.*, 1997; Fox, 2000; Grant, 2000; Mutrie, 2000; Huppert *et al.,* 2005; Mental Health Foundation, 2005; Friedli *et al.*, 2007). A recent review of reviews suggested broad association between physical activity and both mental wellbeing and preventing mental health problems for children and young people, although the strength of this assertion varied across reviews (Whitelaw *et al.*, 2008). The reviews broadly suggested:

- significant evidence of a consistent association between physical activity and heightened self-esteem, or self-concept among young people, with physical activity potentially acting to promote feelings of self-efficacy, self-determination and personal control
- relatively equivocal evidence of an association between physical activity and cognitive functioning, with support for this association strongest for younger ages
- evidence indicating that participation in sport and physical activity can help prevent or reduce mental health problems e.g. anxiety and depression, physically active children and young people are less likely to suffer from mental health problems.

Further, a recent systematic review similarly showed mixed strength of association between physical activity and depression in three cross-sectional studies and three randomised control trials (Janssen and LeBlanc, 2010). A review on youth life satisfaction has also shown positive links between youth life satisfaction and exercise (Proctor *et al.*, 2009).

Physical activity for children can also provide the opportunity for play activity and pleasure (see section 3.2.1 Learning and Development), allowing a child to explore their environment, and research suggests that both access to nature and physical activity improves mental health, meaning that physical activity in green spaces and parks brings associated restorative effects from nature (see section 3.6.4 Physical environment) (see references cited in Lester and Russell, 2007). Children and young people also identify the importance of physical activity, keeping fit and healthy and exercise/sport as being important for their mental health, although the latter is also linked to achieving in sport and the recognition thus received from adults (Harden *et al.*, 2001; Shucksmith *et al.*, 2009).

The optimal level and intensity of physical activity for promoting mental wellbeing and preventing mental health problems is unclear, although there is a general association between increased quantities of physical activity and enhanced mental wellbeing (Whitelaw *et al.*, 2008). But compared to physiological benefits, lesser levels may be sufficient for mental wellbeing gain i.e. the quality of the physical activity experience may be as important. However, there is a possible negative side to physical activity in that poor physical activity experiences can cause, for example, embarrassment, loss of control and failure.

A number of possible mechanisms have been suggested as to how physical activity influences mental health ranging from:

• biochemical and physiological changes increasing positive mood levels

• improvements in fitness and weight loss – feeling the body is fitter/more 'toned' is associated with improved mental wellbeing

• increased sense of mastery

• distraction – from stressful parts of life

• social interaction and sense of belonging

• social and cultural benefits – physical activity is largely seen as socially and culturally 'virtuous' and therefore has potential to increase self-esteem (Whitelaw *et al.*, 2008).

Evidence linking diet to mental health is emerging but promising, with some studies suggesting an association between certain food and both emotional and cognitive function and mental health problems such as depression (Van de Weyer, 2005; Cornah, 2006a; The British Dietetic Association, 2006; Friedli *et al.*, 2007). It has been suggested that changing diets could be a contributing factor in the rise of mental health problems, although more research is required into the link between diet and mental health (Van de Weyer, 2005; Cornah, 2006a; The British Dietetic Association, 2006). Most of these studies, however, have taken place with adults and it cannot be assumed that the results can be extrapolated to children and young people.

Poor nutrition in early childhood has, however, been found to be associated with increased risk of emotional and behavioural problems (Jenkins *et al.*, 2008). There is evidence that early life nutrition can affect neurocognitive development and that some food additives appear to worsen hyperactivity symptoms and behaviour in all children, including those with attention deficit hyperactivity disorder (Tomlinson *et al.*, 2009). Obesity in childhood and adolescence has also been associated with negative consequences and social inequalities including impaired psychological health, poor quality of life, low self-esteem, psychological distress, depression, disordered eating, bulimia, body dissatisfaction, being perceived as unattractive, poor educational outcomes, and involvement in bullying behaviour (see references cited in Reilly, 2009; Scottish Intercollegiate Guidelines Network, 2010). The evidence to suggest an association between obesity and poor mental health, including depression in teenagers, is plausible for older children but weaker for younger children, and girls may be more affected than boys (Scottish Intercollegiate Guidelines Network, 2010; Gatineau and Dent, 2011).

There is a clear association between alcohol misuse and mental health problems although the direction of causality is debated (Cornah, 2006b; Friedli *et al.*, 2007). A relationship also exists between alcohol misuse and an enhanced risk of physical harm, poor social

functioning, and factors such as violence, domestic abuse and anti-social behaviour, which can all influence mental health.  The risks associated with illicit drug use are similar to those of alcohol misuse (Friedli *et al.*, 2007).

Growing evidence points to drug and alcohol abuse as significant threats to children and young people's mental health.  Research suggests that during adolescence the brain, which is undergoing neural reorganisation, may be particularly vulnerable to disruption in functioning, development and performance by drug or alcohol use (Kirkwood *et al.*, 2008).  Drug or alcohol abuse can lead to neural, cognitive and behavioural changes.  Effects include changes in learning, in attention and in risk-taking behaviours (Kirkwood *et al.*, 2008 and references cited therein).

Rates of psychiatric disorders are higher among young people who are substance users and research suggests that adolescents who smoke cannabis at least 50 times before the age of 18 years treble their chances of suffering schizophrenia in later life (see references cited in Howell, 2007).  According to the British Crime Survey, cannabis has remained the illegal drug most likely to be taken by young people in the last two decades (Murphy and Roe, 2007 cited in Kirby *et al.*, 2008). Its heavy use during adolescence may adversely affect brain development and lead to decrements in attention, learning and memory.

The associations, however, between substance misuse, and specifically cannabis and ecstasy, and mental health problems such as depression or psychosis, schizophrenia and psychotic symptoms are complex with possible reciprocal relationships.  There is considerable debate whether substance misuse causes mental health problems where none previously existed or whether it acts as a contributory factor that precipitates the onset of mental health problems, psychosis in particular, for a vulnerable minority and/or exacerbates episodes of mental health problems 'unmasking' a latent and pre-existing tendency to such mental health problems, with younger users being at greater risk (see references cited in Royal College of Psychiatrists' Public Education Editorial Board, 2006; see references cited in Howell, 2007; Howell *et al.*, 2008 cited in Kirkwood *et al.*, 2008).  There appears to be greater consensus for the latter explanation.

Among 13 to 15 year olds in the UK, having a psychiatric disorder such as depression has been associated with an increased risk of substance use and there is growing evidence that youth smoking is a marker for poor mental health with some evidence suggesting that anxiety and depression in adolescence increases the likelihood of nicotine dependence (Boys *et al.,* 2003, Mathers *et al.,* 2006 and Patton *et al.,* 2006 cited in Kirby *et al.*, 2008).  Good evidence suggests that smoking, drinking and drug use are inter-related and a strong relationship exists between age and substance use, among adolescents in Scotland: cigarette smoking, alcohol use and cannabis use all increase between the ages of 11 and 15 years (Kirby *et al.*, 2008 and references cited therein).

Research also indicates that substance use is associated with mental wellbeing.  Substance use has been found to be associated with lower life satisfaction and early initiation (age less than 15 years) is associated with an increased likelihood of reporting low life satisfaction (Proctor *et al.*, 2009).

There is little research examining the potential detrimental effects of youth engagement in sexual risk-taking behaviour. Research with US adolescents has identified negative relationships between life satisfaction and various sexual risk-taking behaviours including ever having had/age of first sexual intercourse, not using a condom/contraception at last intercourse, and having been forced/forcing someone to have sex (Valois *et al.,* 2002 cited in Proctor *et al.*, 2009).

The risk of teenage motherhood has been found to be raised among teenage girls with lower self-esteem, probably linked to an increased likelihood of unprotected intercourse (Elmer, 2001 cited in Fraser, 2005). Recent UK research has shown that becoming a mother while still a teenager is associated with an increased likelihood of experiencing socio-economic deprivation, mental health difficulties and drug problems, and is correlated with lower educational attainment, living in a deprived neighbourhood and exposure to partner's anti-social or abusive behaviour. In addition, their children show reduced educational attainment, more emotional and behavioural problems, increased risk of maltreatment or harm, and higher rates of illness, accidents and injuries (Moffit *et al.*, 2002 cited in Fraser, 2005).

## Indicators

| Healthy living | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Physical activity | • Percentage of 5 to 15 year olds who met the recommended level of physical activity for children (at least 60 minutes of physical activity on all 7 days in the last week) in the previous week[1, 2] | • Scottish Health Survey |
| Healthy eating | • Percentage of 16 and 17 year olds who ate five or more portions of fruit and vegetables in the previous day <br> • Percentage of 2 to 15 year olds who ate five or more portions of fruit and vegetables in the previous day[1] <br> • Percentage of P7, S2 and S4 pupils who usually have breakfast every weekday[3] | • Scottish Health Survey <br><br> • Scottish Health Survey <br> • Health Behaviour in School-aged Children Survey (HBSC) |
| Obesity | • Percentage of 2 to 15 year olds classified as obese or morbidly obese (BMI ≥95th Centile of the 1990 UK reference data) | • Scottish Health Survey |
| Alcohol consumption | • Percentage of S2 and S4 pupils who drank alcohol in the last week[3, 4] <br><br> • Percentage of P7 pupils who drink anything alcoholic every week[3] <br> • Mean number of units drunk by S2 and S4 pupils in the last week[3, 4, 5] | • Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) <br> • HBSC <br><br> • SALSUS |

| Drug use | • Percentage of S2 and S4 pupils who usually take illicit drugs at least once a month[3] | • SALSUS |
|---|---|---|
| Smoking | • Percentage of 16 and 17 year olds who smoke cigarettes nowadays | • Scottish Household survey |
| | • Percentage of S2 and S4 pupils who usually smoke at least one cigarette a week[3] | • SALSUS |
| | • Percentage of P7 pupils who smoke at least once a week[3] | • HBSC |
| Sexual health | • Pregnancies (registered births and stillbirths combined with notifications of abortions) in children and young people aged 15 years and under per 1,000 females aged 13 to 15 years old in the past year | • ISD Scotland www.isdscotland.org/Health-Topics/Maternity-and-Births/Teenage-Pregnancy/ |
| | • Percentage of S4 pupils who reported having had sexual intercourse, who used a condom on the last occasion that they had sexual intercourse[3] | • HBSC |

[1] Data includes parent/guardian assessment for those aged 12 years and under and self-assessment for those aged 13 years and above.

[2] From July 2011 the physical activity recommendations were extended to cover those aged 2 to 5 years; Pre-school children who can walk unaided should be active for at least 180 minutes a day.

[3] P7, S2 and S4 pupils are circa 11, 13 and 15 year olds, respectively.

[4] The percentage of S2 and S4 pupils who drank alcohol in the last week and the mean number of units drunk by S2 and S4 pupils in the last week need to be interpreted in tandem.

[5] Where an indicator is based on the mean, the mean will be used if the data are normally distributed; if not then the median is more appropriate. The appropriateness of the mean will be assessed on analysis of the data.

## Other key national Scottish indicators

| Healthy living | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| **Physical activity** | |
| Adult Mental health Indicators Set | • Physical activity - Percentage of adults (aged 16 and above) who met the recommended level of physical activity for adults (30 minutes or more moderate to vigorous physical activity on at least 5 days per week) in the previous four weeks, Scottish Health Survey |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Physical activity and sport |
| Early Years Framework | • % of children who meet the current recommended levels of physical activity of 60 mins per day, Scottish Health Survey and Growing up in Scotland Survey[22] |
| Equally Well EY10 | • Children have more active lifestyles, access to green space and opportunities to play |
| GIRFEC | • SHANARRI Indicators – Healthy, Active |

[22] Note that this survey does not provide monitoring trends.

| **Healthy eating** | |
|---|---|
| Adult Mental Health Indicators Set | • Healthy eating - Percentage of adults who ate five or more portions of fruit and vegetables in the previous day, Scottish Health Survey |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Nutrition |
| Equally Well EY2 | • Healthier lifestyles among younger women (diet, smoking, alcohol) |
| GIRFEC | • SHANARRI Indicators – Healthy |
| **Obesity** | |
| Early Years Framework, Core 10 | • Percentage of obese children in Primary 1, ISD Scotland |
| Equally Well EY7 | • Reduce percentage of children overweight or obese |
| GIRFEC | • SHANARRI Indicator – Healthy |
| National Performance Framework | • Increase the proportion of healthy weight children – Percentage of children aged 2-15 years whose Body Mass Index lies within a healthy range (between the 5th and 85th percentile of the UK growth reference charts), Scottish Health Survey |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • Child obesity in Primary 1 – Children whose BMI is within the top 5% of the 1990 UK reference range for their age and sex – percentage of the total cohort, Child Health Systems Programme – Pre-school Children |
| Single Outcome Agreement Local Outcome Indicator (October 2011) | • Estimated percentage of obese children in P1, Child Health Systems Programme - School |
| **Alcohol consumption** | |
| Adult Mental Health Indicators Set | • Alcohol consumption - Percentage of adults (aged 16 and above) whose usual weekly consumption of alcohol in the past year was at or below the recommended weekly limit (21 units for men and 14 units for women), Scottish Healthy Survey |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Substance misuse |
| Equally Well EY2 | • Healthier lifestyles among younger women (diet, smoking, alcohol) |
| GIRFEC | • SHANARRI Indicators – Healthy |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • Alcohol use – Percentage of 15-year old pupils who usually drink alcohol at least once a week, SALSUS |
| **Drug use** | |
| Adult Mental Health Indicators Set | • Drug use - Percentage of adults (aged 16-59) who have taken drugs in the past year, Scottish Crime and Justice Survey |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Substance misuse |
| GIRFEC | • SHANARRI Indicators – Healthy |
| National Performance Framework | • Decrease the estimated number of problem drug users (15-64, Opiates (inc. heroin & methadone), Benzodiazepines *illicitly,* Cocaine powder *problematically,* |

| | Crack cocaine) in Scotland by 2011 | range of sources, estimates in a project |
|---|---|---|
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | | • Drug use – Percentage of 15 year-old pupils who usually take illicit drugs at least once a month, SALSUS |
| Single Outcome Agreement Local Outcome Indicators (October 2011) | | • Percentage of 15 year olds stating they take illicit drugs at least once a month, SALSUS |
| **Smoking** | | |
| Curriculum for Excellence | | • Health and wellbeing: experiences and outcomes, Substance misuse |
| Equally Well EY2 | | • Healthier lifestyles among younger women (diet, smoking, alcohol) |
| GIRFEC | | • SHANARRI Indicators – Healthy |
| National Performance Framework | | • Reduce the percentage of adults who smoke - Proportion of adults aged 16+ years who are current smokers |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | | • Smoking prevalence – Percentage of 15 year old school pupils smoking at least one cigarette a week (regular smokers), SALSUS |
| Single Outcome Agreement Local Outcome Indicators (October 2011) | | • Percentage of adult population who smoke – Percentage of those aged 16 and above who smoke nowadays, Scottish Household Survey |
| **Sexual health** | | |
| Curriculum for Excellence | | • Health and wellbeing: experiences and outcomes, Relationships, sexual health and parenthood |
| Early Years Framework, Core 10 | | • Teenage pregnancy rate – pregnancies among under 16 year olds (3 year average per 1,000 population), ISD Scotland |
| Equally Well EY3 | | • Reduction in vulnerable pregnancies |
| GIRFEC | | • SHANARRI Indicators – Healthy |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | | • Teenage pregnancies, <18 years – Teenage (<18 years) pregnancies expressed as a number (3-year total) and 3-year average crude rate per 1,000 females aged 15-17 per year, National Records of Scotland |
| Single Outcome Agreement Local Outcome Indicators (October 2011) | | • Pregnancies among under 16 year olds at conception (includes pregnancies that result in live or still birth, or abortion) (3 year average per 1000 relevant population), ISD Scotland www.isdscotland.org/Health-Topics/Maternity-and-Births/Teenage-Pregnancy |

### 3.2.3  General health

**Working understanding**

This construct covers general health and long-standing physical health problems as well as disabilities.[23]

**Rationale**

The co-occurrence of physical illness and mental health problems is well known and growing evidence suggests a complex interplay between physical and mental health (World Health Organization *et al.*, 2004).  Mental health is increasingly seen as fundamental to physical health, and physical illness and disability influence the risk of mental health problems (Department of Health, 2001; Prince *et al.*, 2007).  For instance, chronic diseases, such as diabetes, in young people are associated with increased risk of mental health problems (Tan *et al.*, 2005 cited in Patel *et al.*, 2007).  The effect of physical health on mental health may result from factors such as the difficulties of living with an illness or long-term condition, associated lifestyle changes, limitations to access to 'age-appropriate' opportunities and experiences and effects on relationships and socialising.

A survey of the mental health of children aged 5 to 16 years in Great Britain found that children with a mental health problem tend to have poorer general health (as assessed by both the parent and the child) (Green *et al.*, 2005).  The three-year follow-up indicated that having a physical illness was significantly associated with the onset of emotional and conduct disorders (Parry-Langdon *et al.*, 2007).  Other studies have also found physical illness in childhood to be associated with later depression (Fryers, 2007).

A range of physical health complaints has also been shown to affect the mental health of children and young people.  Adolescents suffering headaches and migraines have been found to report decreased psychological functioning and lower life satisfaction, and changes in headaches and migraine activity has been shown to be related to parallel changes in life satisfaction and psychological functioning (Langeveld *et al.*, 1996, 1997 cited in Proctor *et al.*, 2009).  Other studies have also shown increased headache suffering to be associated with lower life satisfaction (Langeveld *et al.*, 1999 cited in Proctor *et al.*, 2009) and a negative association between life satisfaction and poor self-rated health, poor physical health and activity limitation among adolescents (Zullig *et al.*, 2005 cited in Proctor *et al.*, 2009).

Children and young people themselves identify poor health and illness as having a negative impact on their mental health.  Consequences include feeling more vulnerable emotionally and being conscious of being 'different' from their peers (Shucksmith *et al.*, 2009).  'Feeling good' is also identified as being contingent on their feeling healthy, amongst other things.

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[23] Whilst it is recognised that there is a distinction between disability and health, current surveys (both adult and child surveys) in Scotland contain questions which link both of these together.  Disability and health are therefore included in this construct to reflect the nature of the data currently available.  It is hoped that in the future the surveys will recognise the distinction and change to asking about the two issues separately.  At this point the indicators set will be revised accordingly.

## Indicators

| General health | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Self-reported health | • Percentage of 16 and 17 year olds who perceive their health in general to be good or very good<br>• Percentage of children and young people aged 15 years and under whose health in general is perceived to be good or very good[1] | • Scottish Health Survey<br>• Scottish Health Survey |
| Long-standing physical condition or disability | • Percentage of 16 and 17 year olds who have a long-standing physical condition or disability that has troubled them for at least 12 months, or is likely to affect them for at least 12 months<br>• Percentage of children and young people aged 15 years and under who have a long-standing physical condition or disability that has troubled them for at least 12 months, or is likely to affect them for at least 12 months[1] | • Scottish Health Survey<br><br><br>• Scottish Health Survey |
| Limiting long-standing physical condition or disability | • Percentage of 16 and 17 year olds who have a long-standing physical condition or disability that limits their daily activities<br>• Percentage of children and young people aged 15 years and under who have a long-standing physical condition or disability that limits their daily activities[1] | • Scottish Health Survey<br><br>• Scottish Health Survey |

[1] Data includes parent/guardian assessment of those aged 12 years and under and self-assessment for those aged 13 years and above.

## Other key national Scottish indicators

| General health | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| **Self-reported health** | |
| Adult Mental Health Indicator Set | • Self-reported health – Percentage of adults who perceive their health in general to be good or very good, Scottish Health Survey |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Physical wellbeing |
| Equally Well EY8 | • Improved health and wellbeing of looked after children |
| GIRFEC | • SHANARRI Indicators – Healthy |
| National Performance Indicator | • Improve self-assessed general health – Percentage of adults (16 and above) who assess their health as very good or good, Scottish Health Survey |
| Single Outcome Agreement Local Outcome Indicators (October 2011) | • Self-assessed health - Percentage of adults (16 and above) who perceive their health in general to be good or very good, Scottish Household Survey |

| **Long-standing condition or disability** | |
|---|---|
| Adult Mental Health Indicator Set | • Percentage of adults who have a long-standing physical condition or disability (long-standing = troubled the person for at least 12 months, or likely to affect them for at least 12 months), Scottish Health Survey |
| **Limiting long-standing condition or disability** | |
| Adult Mental Health Indicator Set | • Percentage of adults who have a long-standing physical condition or disability which limits their daily activities, Scottish Health Survey |

### 3.2.4  Spirituality

### Working understanding

The complexity of spirituality as a construct, which is often conflated with organised religious practice, makes it difficult to formulate a working understanding from the literature, especially on which aspects of religion/spirituality are important.  There is also debate as to where spirituality fits in the context of mental health - some regard it as a part of mental wellbeing (section 3.1.1 Mental wellbeing).  Additionally, the associations between religiosity/spirituality and mental health in child or adolescent populations have not been extensively or systematically studied, the available evidence is inconclusive and spirituality is likely to be culturally sensitive, making generalisability between populations limited.

The importance attached by many people to spirituality means, however, that it has been selected for an indicator although considerable further work will be required on its working understanding and on identifying sources of data.  Given the considerable problems with defining spirituality, and the difficulties of distinguishing between religion and spirituality, a working understanding of this construct has yet to be agreed.  The construct of spirituality should therefore be viewed as a 'work in progress' with an acceptance that it covers complex issues that many are grappling with and that what it is exactly and how to assess remain unclear at the current time.

### Rationale

Spirituality is considered by many to be an important factor for mental wellbeing.  However, there are differing views in the literature about whether spirituality should be considered in its own right or is a part of eudaimonic wellbeing (see section 3.1.1 Mental wellbeing) (van Dierendonck and Mohan, 2006).  Indeed, Koenig (2008) notes that the measurement of spirituality is in some instances 'contaminated' with aspects of positive psychological traits, such as purpose and meaning in life, which therefore assures that positive correlations exist between spirituality and mental health (Koenig, 2008).  The complexity of spirituality as a construct, which is often conflated with organised religion, as well as methodological limitations, such as different definitions and the heterogeneous and multidimensional nature of assessing spirituality and religiosity, make it difficult to draw definite conclusions from the literature, especially on which aspect of religion/spirituality is important (Friedli, 2004; World Health Organization *et al.,* 2004; Cornah, 2006c; Dew *et al.*, 2008; Koenig, 2008).  Whilst spirituality can exist independently of religion, for many their spirituality exists within a religious context.  Much of the research focuses on formalised religion and the observable, measurable components of this, such as church attendance, although religious practice/affiliation is not a necessary or sufficient measure of spirituality.

Whilst there is accumulating evidence that religiosity/spirituality are important correlates of mental health in adult populations (see references cited in Wong *et al.*, 2006; see also Parkinson, 2007b), the associations between religiosity/spirituality and mental heath in children or adolescent populations have not been so extensively or systematically studied.  Recent reviews of the relationships between religiosity/spirituality and positive effects on adolescent mental health show mixed results (Cotton *et al.*, 2006; see references cited in Wong *et al.*, 2006; Dew *et al.*, 2008).  Interestingly, Shucksmith *et al.*, in their review of the literature on what children and young people think impacts on their mental health, found no

evidence of children and young people themselves citing spirituality as important to their mental health (Shucksmith *et al*., 2009).

A recent systematic review of research from USA between 1998 and 2004 (twenty articles) on the relationships between adolescent (mean age for samples 10 to 20 years old) religiosity/spirituality and mental health indicated that most studies showed higher levels of religiosity/spirituality are associated with better mental health in adolescents (Wong *et al*., 2006). Findings were generally consistent with those of studies with older populations. Institutional (social and behavioural aspects of religiosity/spirituality e.g., attendance at religious services and participation in bible study groups) and existential (concepts of spirituality that were not explicitly religious in nature e.g., existential well-being) dimensions of religiosity/spirituality had the most robust relationships with mental health. This contrasts with a meta-analysis for adults which indicated that personal devotion (personal and internalized devotion e.g., intrinsic religious orientation and religious private practices) was most strongly related to mental health whilst institutional dimensions were the weakest (Hackney and Sanders, 2003 cited in Wong *et al*., 2006). Consistent with this adult analysis, however, was some limited evidence that adolescent religiosity/spirituality was more strongly associated with mental wellbeing than mental health problems. The relationships between religiosity/spirituality and mental health were also generally stronger or more unique for males and older adolescents than for females and younger adolescents.

Importantly, Wong *et al.* note the potential conceptual overlap between some measures of religiosity/spirituality and mental health which might have artificially inflated the strength of the relationships between the two constructs, particularly true for existential religiosity/spirituality measures and mental wellbeing (Wong *et al*., 2006). Therefore findings of the salience of existential religiosity/spirituality in predicting adolescent mental health must be interpreted with caution.

Analysis of a large national survey of 13 to 15 year olds in England and Wales indicates that of those who had a sense of purpose in life:

- a higher percentage found life worth living
- a lower percentage that they were not worth much as a person
- a lower percentage had considered taking their life, and
- a lower percentage had often felt depressed

than those who either did not have a sense of purpose or were unsure. Those who prayed daily were most likely to have a sense of purpose and to find life really worth living (Rees *et al*., 2006). However, those who prayed 'sometimes' were the most likely to feel depressed. This complex pattern is consistent with some other studies looking at links between religion and depression, for example, a study of young urban adults in the USA, found higher levels of depression among the moderately religious than among either very religious or nonreligious respondents. The interpretation proposed being that, '*while established patterns of religious coping can routinely mitigate distress, heightened stress exposure may elicit increased prayer among the less religious*' (Eliassen and Henry, 2005 cited in Rees *et al*., 2006). Rees *et al.* found a similarly complex picture in relation to belief in eternal life. Those who believed in eternal life were most likely to feel a sense of purpose but also most likely to often feel depressed and to have suicidal thoughts. In this analysis, overall a sense of purpose was

found to be important.  Regression analysis suggested that religious affiliation, involvement in prayer and belief in eternal life are highly independently associated with a sense of purpose in life.  However, interpretation of Rees *et al.*'s findings for reporting here are complicated by the fact that they take a definition of spirituality which is broader than the one being proposed in the indicators project (and which others may not similarly align with) and therefore covers many things which are included under other constructs.

Importantly, however, religious beliefs and practice can also harm mental health (Cornah, 2006c; Cotton *et al.*, 2006; Wong *et al.*, 2006).  For example, whilst Cotton *et al.* in their review found evidence of a direct association between religion/spirituality and lower levels of depressive symptoms in adolescents and a lower risk of suicide, they also found evidence that negative inter-personal religious experience (i.e. negative/critical demand from their religious congregation) in adolescents was associated with greater depressive symptoms (Cotton *et al.*, 2006).

Explanations for the link between religion/spirituality and mental health for adolescents include:

- provision of a sense of order and belonging
- social inclusion and participation involving social support, and consequently social interactions may be more important than beliefs
- promotion of a more positive lifestyle
- coping mechanism for general life concerns and difficult life situations
- generating a sense of meaning
- learning experiences afforded by religious institutions (e.g. leadership skills, ways to cope, cultural knowledge)

 (Cotton *et al.*, 2006; Wong *et al.*, 2006; Dew *et al.*, 2008; Koenig, 2009).

Whilst the evidence has been criticised as weak and inconsistent, and there are limitations in current research, there have been a number of calls for the regular inclusion of religiosity and spirituality measures in health research studies (Aukst-Margetic and Margeti, 2005; Ellison and Levin, 1998; Hill and Pargament, 2003).  This field is emerging, topical and of growing public and political interest.

### Indicators

| Spirituality | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| *Spirituality* [R] | - *Assessment of spirituality* | - *No suitable data source identified* |

[R] Indicates that there is a recommendation attached to the indicator.

### Recommendation
### Spirituality
There is a need to identify or develop question(s) which adequately measure the concept of spirituality, for inclusion in a routine national survey.

Initial work to explore in detail the complex construct of spirituality for children and young people – what it is to them, its relation to religion, what aspects set it apart from eudaimonic wellbeing[24] and meaning and purpose in life – is required. This will assist in developing the working understanding further and in developing an appropriate measurement tool suitable for inclusion in national surveys. Questions included in the Office for National Statistic's (ONS) 2007 survey of the emotional development and well-being of children and young people (Parry-Langdon *et al*., 2007) could offer some insight. These cover some aspects of spirituality but are not sufficient. Other recent work on spirituality for children and young people includes that of the Playfield Institute.

### Other key national Scottish indicators

| Spirituality | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| Adult Mental Health Indicator Set | • Indicator to be developed |
| Curriculum for Excellence | • Religious and moral education: experiences and outcomes, Beliefs |
| Curriculum for Excellence | • Religious and moral education: experiences and outcomes, Development of beliefs and values |

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[24] The eudaimonic perspective of wellbeing focuses on psychological functioning, good relationships with others and self realisation. This is the development of human potential which when realised results in positive functioning in life, and covers a wide range of cognitive aspects of mental health.

### 3.2.5 Emotional intelligence

### Working understanding

Emotional intelligence (also referred to as emotional literacy or emotional competence) is defined by researchers in a number of ways (Day *et al.*, 2005). Definitions can be classified as either trait or ability emotional intelligence (Petrides and Furnham, 2003 cited in Day *et al.*, 2005). Overall, definitions of emotional intelligence represent 'work in progress' and different authors emphasise different aspects, with controversy over how work in this complex area should be thought about and labelled (Weare and Gray, 2003). There is, however, broad agreement that emotional intelligence involves accurately perceiving the emotions you are feeling and self-regulation/management of those emotions and so is fundamental to good relationships with others and therefore mental wellbeing, indeed as for spirituality, there is debate as to where emotional intelligence fits in the context of mental health - some regard it as a part of mental wellbeing (see sections 3.1.1 Mental wellbeing, 3.3.1 Family relations and 3.4.2 Peer and friend relationships).[25]

For the trait emotional intelligence view, which is assessed by self-report measures, emotional intelligence is seen as being able to recognise and regulate emotions in self and others (Goleman, 1998, Abraham, 1999 and Schutte *et al.*, 2001 cited in Reeves, 2005). According to Goleman, it consists of four major components: awareness of self and others and management of self and others (Goleman *et al.*, 2002 cited in Reeves, 2005; Vaillant, 2003) and thus involves a range of emotional skills and personality traits, namely self-awareness, self-management, social awareness and social skills. It covers:

- being self-aware - to accurately perceive the emotions you are feeling
- self-regulation/management - the ability to handle difficult and powerful emotions and redirect them in a positive manner so that their expression is appropriate (this involves the capacity to self-soothe anxiety and to shake off hopelessness and gloom)
- empathy - the awareness of others' feelings
- accurate responses to emotions in others involving a skill in negotiating close relationships with others.

The emphasis on self-awareness and self-regulation (self-monitoring) is consistent with young people's own views on the importance of these dimensions (Shucksmith *et al.*, 2009).

In the ability emotional intelligence view, emotional intelligence is seen as an actual intelligence with four mental abilities for processing emotional information. These abilities facilitate: perceiving and identifying emotions; integrating emotions into thought processes; understanding emotions; and managing emotions thereby promoting emotional and intellectual growth (Mayer and Salovey, 1997 cited in Vitello-Cicciu, 2003; Freshwater and Stickle, 2004; Day *et al.*, 2005). This model involves cognitive processing of information and so reflects mental abilities (rather than perceived abilities) and requires objective performance tests.

As for spirituality, the importance attached by many people to this area means that it has been selected for an indicator, to omit would be an oversight, although considerable further

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[25] Note that the emotional intelligence of mothers has a significant bearing on the development of emotional intelligence in the child.

work will be required to define the construct of emotional intelligence and how it might be measured for an indicator.  The construct should therefore be viewed as a 'work in progress'.

### Rationale

Although a field of conflicting views, a growing body of research suggests that emotional intelligence is associated with positive life outcomes across a range of domains including mental health (see discussions in Austin *et al.*, 2005 and Day *et al.*, 2005).  Emotional intelligence is regarded by some as a key skill for inter-personal relationships and therefore important for mental wellbeing, both at the individual, group and societal level.  The benefits of being able to read feelings from nonverbal cues have, for example, been demonstrated in a range of countries (Goleman, 1995).

It has also been stated that high emotional intelligence reflects above average mental health and that it '*will emerge as the most important single dimension of mental health*' (Vaillant, 2003).  Children identified as having a mental health problem in a national survey in Great Britain were assessed as having a poorer ability to empathise with others (parental assessment on the social aptitude scale which measures ability to read other people's social and emotional cues correctly) than children who did not have mental health problems (Green *et al.*, 2005).  In the three-year follow-up, persistent conduct disorder, compared with recovery, was more likely in children and young people with lowest empathy scores at the initial survey, and those who had aptitude scores in the lowest quartile at the outset were more likely to have developed an emotional or conduct disorder (Parry-Langdon *et al.*, 2007).

Whilst children do not talk about emotional intelligence *per se*, some recognise the importance of being in control of their emotions and feelings for their mental wellbeing (Shucksmith *et al.*, 2009).  In their review of the literature on what children and young people think impacts on their mental health, Shucksmith *et al.* also note:

> "Their understanding that mental wellbeing is fluid and contingent on a range of factors may also equate well to emotional intelligence – they understand the importance of being self-aware and of needing to be self-monitoring."

The literature relating to children often cites the concept of emotional intelligence and notes it being key to the establishment and maintenance of healthy relationships, themselves of great benefit to mental health (see sections 3.1.1 Mental wellbeing, 3.3.1 Family relations and 3.4.1 Peer and friend relationships) (Weare, 2000 cited in Blank *et al.*, 2008).  Research also suggests that emotional intelligence is associated with health-related variables, for example high emotional intelligence is a protective factor for smoking risk in adolescents (Trinidad *et al.*, 2004).

### Indicators

| Emotional intelligence | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| *Emotional intelligence* [R] | • *Assessment of emotional intelligence* | • *No suitable data source identified* |

[R] Indicates that there is a recommendation attached to the indicator.

## Recommendation

### Emotional intelligence

Further work is required to define the construct of emotional intelligence and how it might be measured for an indicator.

An in-depth review of the literature is needed to obtain a greater understanding of this complex construct and the academic debates. This will assist in developing the working understanding further and in developing an appropriate measurement tool suitable for inclusion in routine national surveys.

### Other key national Scottish indicators

| Emotional intelligence | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| Adult Mental Health Indicator Set | • Indicator to be developed |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Mental and emotional wellbeing |

### 3.2.6 Life events

#### Working understanding
This construct covers significant life events thought to have a potential impact on the mental health of a child by virtue of being highly (psychologically) threatening. These cover both events which happen to the child itself and those which happen to the child's family, and both emotional and physical trauma. Life events can range from family conflicts/discord including divorce/separation/relationship breakdown, loss, bereavement, or illness of a loved one, parental stress and caring responsibilities, abusive parenting, sexual abuse, aggressive bullying, witnessing domestic violence, violence and crime to personal long-term/serious illness, difficulties associated with growing up, and social life transitions including going into care and school transitions.

A distinction is made between stressful life events and adverse childhood experiences. The former is associated with undesirable life events such as parental divorce or illness of a loved one whist the latter to the experience of more severe very traumatic life events, such as being or seeing someone else physically or sexually abused or being caught in a fire, that can be associated with post traumatic stress disorder.

This construct covers life events generically and the impact of multiple life events, rather than an assessment of the impact of life events individually. Some important life events are, however, covered individually under other appropriate constructs, for example, family conflict under Family relations (section 3.3.1) and domestic violence under Violence (section 3.6.5).

#### Rationale
Some life events cause major alteration in life circumstance e.g. death of a parent, whilst for others the threat is primarily cognitive or emotional, the event changes the child's perception of themselves/of people/or things in a way that presents a threat to the child's self-esteem or reduces their perceived sense of security. Some life events may combine both e.g. parental separation. Whilst there is a spectrum of severity of trauma, the impact on the child will be influenced by a range of factors including the resilience and life circumstances of the child, for example a supportive environment can act as a buffer from adversity (see section 1.3 Child development, resilience and mental health). Ostensibly, life events may have a great impact on some children while for others they may have a surprisingly small impact. Children and young people clearly identify significant life events as having a major impact on their mental health (Harden *et al.*, 2001; Shucksmith *et al.*, 2009).

Most life events that present a long-term psychological threat to children frequently involve disruption to important social relationships/interactions. Research has shown that negative life events are more common for those having chronic psychosocial adversities and that many stressful life events impinging on children are influenced in one way or another by their parents' behaviour e.g. divorce, domestic violence, crime, substance abuse and neglect (Sandberg and Rutter, 2008).

Although single severe stress events may carry risk, multiple events and events associated with chronic adversity carry the greatest risk. It has been suggested that moderate or highly undesirable recent life events exert potential or causal effects on the onset of emotional and

behavioural symptoms in school aged children (Goodyer, 1990 cited in Green *et al.*, 2005). This premise has been tested in recent surveys by the Office for National Statistics of children aged 5 to 15/16 years in Great Britain by determining, through parental report, whether ten stressful life events thought to be highly (psychologically) threatening to a child had occurred for the sample.  In the 1999 survey, many children experienced more than one stressful event in the course of their lives; about a third of the sample had never had a stressful life event, a third had experienced one event and around a third two or more stressful events (Meltzer *et al.,* 2000).  Although children with a mental disorder were more likely than other children to have had one stressful life event, they were far more likely to have experienced three or more events: 31% compared with 13%.

Similarly, using a slightly modified stressful life events question set, the 2004 survey found that those with an emotional disorder were more likely than other children to have experienced each of ten stressful life events and were more than twice as likely to have had two or more stressful life events (Green *et al.*, 2005).  Similarly, children with conduct disorders were more likely to have experienced all but two of the ten events and for those with a hyperkinetic disorder all but four of the ten events.  Both children with a conduct or hyperkinetic disorder were twice as likely to have experienced two or more events.  Individuals having either of these three disorders were also more likely to have experienced separation of parents and a parent with a serious mental illness.  The three-year follow-up, found that the onset of an emotional disorder was more likely among children who reported three or more stressful life events (Parry-Langdon *et al.*, 2007).  Similarly, a significant factor in the onset of conduct disorders was the number of stressful life events – children and young people experiencing three or more significant life events were almost twice as likely to develop a conduct disorder than those who had experienced only one to two.

It is increasingly clear that adverse childhood experiences (ACE) can have serious and enduring negative effects upon behaviour, physical and mental health (ACE Study www.acestudy.org/; LONGSCAN www.iprc.unc.edu/longscan/pages/siteinfo/index.htm).  ACE does not refer to the disappointments and difficulties that occur as a normal part of growing up – and that, if dealt with successfully, can build resilience and boost mental wellbeing.  Rather, the ACEs researched are those that are more traumatic and personal – from being sexually abused by a trusted adult to witnessing severe domestic violence.  Longitudinal research evidence finds that neglect has worse impacts than abuse – and that it is the number and duration of ACEs (rather the impact of a single bad episode) that results in the most long-term harm.  The LONGSCAN study offers more than 20 years of analysis and shows that what matters most with respect to future long-term problems for a child is the number of adverse childhood experiences and the cumulative impact rather than the strength of one alone.

Research on the positive aspects of life events has been limited but has demonstrated that major (positive) life events and experiences tend to be associated with subjective wellbeing (Proctor et al., 2009).

## Indicators

| Life events | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| *Stressful life events* [R] | • *Percentage of children and young people who have experienced three or more stressful life events* | • *No suitable data source identified* |
| *Adverse childhood experiences* [R] | • *Percentage of children and young people who have experienced one or more adverse childhood experiences* | • *No suitable data source identified* |

[R] Indicates that there is a recommendation attached to the indicator.

## Recommendations

### Stressful life events

There is a need to collect national data on the extent of stressful life events which have occurred in the life of children and young people. A means of assessing this should be identified or developed and the data collected in a routine national survey.

The ten item question set used in the Office for National Statistics surveys of the mental health of children and young people in Great Britain (Green *et al.*, 2005; Parry-Langdon *et al.*, 2007) could offer insights and a starting point for the development of a data collection tool which could be subsequently adopted by national surveys. There are, however, other additional stressful life events which are not captured by this question set and it would be worth considering whether the question set should be developed further. One such stressful life event which impacts on the mental health of children and young people is loss of contact with a parent, specifically the absence of a positive relationship with a father, especially a birth-father.

### Adverse childhood experiences

There is a need to collect data on the extent of adverse childhood experiences which have occurred in the life of children and young people. A means of assessing this should be identified or developed and the data collected in a routine national survey.

The question set asked of both parents and children in the ONS surveys of the mental health of children and young people in Great Britain (Green *et al.*, 2005; Parry-Langdon *et al.*, 2007) could offer insights and a starting point for the development of a data collection tool which could be subsequently adopted by national surveys.

## Other key national Scottish indicators

| Life events | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| **All the Life events indicators** | |
| GIRFEC | • SHANARRI indicators – Safe, Nurtured, Included |

## 3.3  Contextual Constructs - Family

### 3.3.1  Family relations

### Working understanding

This construct refers to the quality of interactions within families covering parents, siblings and other family members, for example grandparents, aunts and uncles and step parents/family.[26]  It encompasses parenting styles, attachment, parent-child relations, inter-parental relations, family functioning, siblings and wider family relations, providing unpaid care for family members and also includes opportunities to influence family decisions.

There are overlaps with the construct of Parental healthy living, Parental health, Social networks, Social support and Violence (see sections 3.3.3, 3.3.4, 3.5.2, 3.5.3, and 3.6.5 respectively).

### Rationale

Family relations and the home environments they create have a profound effect on children's mental health from the earliest age.  The importance of these relations is evident in the accounts of children and young people themselves; they see family relations as impacting both positively and negatively on their mental health (Harden *et al.*, 2001; Shucksmith *et al.*, 2009).  They place high importance on positive family relationships in creating and sustaining mental wellbeing.  Key aspects that young people highlight include loving and trusting relationships, open communication, strong familial involvement, support in decision making, buffering against adversity and a sense of safety and security.  Conversely, they frequently cite family discord (hostility, conflicts, divorce and family break up) and abusive relationships with parents (both emotional and physical) as a cause of mental health problems.  Children and young people are additionally aware of the detrimental impact that caring responsibilities for other family members can have on their own mental health (i.e. a more negative side of social support, see section 3.5.3 Social support) (Advisory Council on the Misuse of Drugs, 2003; Shucksmith *et al.*, 2009).  These responsibilities can lead to feelings of being different to peers, isolation, worries about the future, loss of self-identity and stigmatisation, which in turn impact on mental health.  However, it must also be remembered that caring can have multiple consequences for the carer.  Expert opinion suggests that being a young carer is not always or only a negative experience (Advisory Group members; Consultation comments; Personal communications with experts).  For some it can boost resilience, self-esteem, self-confidence and coping skills.  It is therefore the nature of the caring experience which is all important and this can be affected by such things as the wider support a young individual gets from services etc.

Longitudinal studies have shown that factors such as a sense of connection, low levels of conflict, and an environment in which the expression of emotions is encouraged protect against development of behavioural or emotional disorders (Patel *et al.*, 2007).  Parenting is of immense importance.  Poor parenting is a well-established risk factor for mental health problems in childhood particularly conduct disorder and lesser degrees of anti-social or aggressive behaviour (Adi *et al.*, 2007b).

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[26]  A parent is the person acting as father, mother or guardian.

A strong body of research demonstrates the significance, for early child development and lifecourse trajectory, of very early experiences of a child with their primary caregiver; a key requisite being secure attachment to a trusted caregiver with consistent caring, support, sensitivity, attunement and responsiveness, and affection (Bowlby, 1969; Irwin et al., 2007). In early infancy attachment (strong nurturant relationships from the child's perspective) to a primary caregiver centres frequently on the mother, although the role of fathers as part of the family unit should not be underestimated (Stewart-Brown and Shaw, 2004; Irwin et al., 2007; Barry and Friedli, 2008; Jenkins, 2008).[27]  Attachment and the security of these in close relationships contribute to resilience.  In contrast, studies suggest that maternal separation during critical periods of development produce enduring neurobiological changes; children raised without primary attachment figures show deficits in cognitive and socio-emotional development, and associated relationship anomalies in childhood (Stewart-Brown and Shaw, 2004; Jenkins, 2008).  Depression and other mental health problems are also more likely.

The importance of early attachment is now supported by neuroscience which strongly suggests that the parent-child relationship influences the development of the parts of the brain which are the seat of emotions, and those which determine social behaviour, in a way which is difficult to reverse in later life (Stewart-Brown and Shaw, 2004).  In the first year of life, the making and breaking of connections between brain cells (synaptogenesis and pruning) is at its highest; neural pathways that are repeatedly used are strengthened, while those that are not used decay (Stewart-Brown and Shaw, 2004; World Health Organization et al., 2004; Puckering, 2007; Irwin et al., 2007; Foresight, 2008).  The more stimulation, the more positive connections are formed in the brain and the better a child thrives.  The quality of nurturing programmes the brain biology of the developing child, making them more or less vulnerable to stressful conditions and mental health problems (see section 1.3 Child development, resilience and mental health).  A warm, sensitive and responsible adult, or small number of familiar adults, is needed to guarantee the best possible outcome.  Biological and environmental factors which can negatively impact on attachment include low birth weight, malnutrition and infections, poverty and its associations, conflict and domestic violence, discontinuity of relationships and mental health problems such as maternal depression.

Beyond infancy, non-attachment based aspects of parenting become important.  Consistent and engaging parenting styles are suggested to be protective of mental health (Patel et al., 2007) while, for example, a large US study has shown that maladaptive parenting has high risk of later mental health problems in children, particularly anxiety and depression as well as suicide attempts in adolescence and young adulthood (Johnson et al., 2001 cited in Fryers, 2007).  The aspect of parenting most consistently linked with psychopathology is parental harshness e.g. verbal aggression, hostility and criticism (the ultimate being physical abuse), which has been shown in a longitudinal study to predict change in child behaviour (Jenkins, 2008).  Violent and aggressive children and those who engage in bullying behaviour are more likely to come from homes where aggression is a favoured problem-solving method and children are encouraged to fight back.  Conversely, in homes were authoritative parenting is practiced (involving love, warmth and support with appropriate limit setting and non-physical discipline) children are protected against engaging in bullying behaviour or experiencing it

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[27] See http://www.simplypsychology.pwp.blueyonder.co.uk/bowlby.html for information on Bowlby's attachment theory.

(Olweus, 1993 cited in Adi *et al.*, 2007b). Differential parenting (within-family differences in the treatment of children) is also associated with increased risk of mental health problems, while a lack of parental monitoring is associated with psychopathology, particularly disruptive behaviour especially in adolescence, and parental knowledge about where children are, who they are with, what they are doing has been found to be a strong predictor of youth crime (Jenkins, 2008).

Lack of parental involvement has been shown to exert a negative effect on mental wellbeing (Proctor *et al.*, 2009). Research has shown that a perceived poor parental relationship is associated with reduced life satisfaction in Canadian adolescents and that in Australian adolescents perceived family functioning is positively associated with life satisfaction, self-esteem and extraversion and negatively associated with neuroses and psychoses (Proctor *et al.*, 2009). Similarly, analysis of Scottish data from the Health Behaviour in School-aged Children Survey, has shown that finding it easy to talk to a mother or father about things that bother them is protective of children's mental wellbeing (specifically life satisfaction) (Levin and Currie, 2010) and others have found that having good communication with parents is associated with fewer psychological complaints (Moreno *et al.*, 2009 cited in Currie *et al.,* 2011).

Correlational research highlights the role of familial variables such as parenting style, parental emotional and social support, and family conflict as crucial in attainment of adolescent life satisfaction (Proctor *et al.*, 2009). Adolescent life satisfaction has also been shown to be independently related to the extent of father/father figure involvement and that both maternal and paternal support are equally important in predicting life satisfaction of adolescent males and females (see references cited in Proctor *et al.*, 2009). Associations also show that fathers contribute (via, for example, closeness, involvement and nurturance) to other positive mental health outcomes of their children such as; happiness, psychological adjustment, reduced anti-social behaviour, social competence, and internal locus of control (see references cited in Proctor *et al.*, 2009). Conversely, the behaviour of fathers is also associated with psychological distress of their children.

Findings on psychological, emotional and behavioural effects of divorce on children's mental wellbeing have been mixed although generally it can be taken that parental separation, divorce and remarriage are associated with diminished wellbeing in adolescents (Proctor *et al.*, 2009). Clear evidence, however, exists for the association of parental divorce/separation or family break-up with an increased risk of mental health problems including depression and disturbed child behaviour (Green *et al.*, 2005; Adi *et al.*, 2007b; Fryers, 2007; Patel *et al.*, 2007; Jenkins, 2008). However, it appears that the strongest factors for this association are the disruption to parenting and the presence of inter-parental conflict before separation. Evidence indicates that pre-divorce conflict and disruption might be a more important risk factor than divorce itself with children often showing signs of distress before divorce. Disruptive family events also have a negative influence on adolescent wellbeing (McFarlane *et al.*, 1995 cited in Proctor *et al.*, 2009).

Inter-parental relationships are therefore important; marital satisfaction is supportive of children's social and emotional development while marital conflict is associated with a range of emotional and disruptive behaviour outcomes, violence and other aspects of pathological

social development (Stewart-Brown and Shaw, 2004; Patel *et al.*, 2007; Jenkins, 2008). Evidence, including a number of longitudinal studies, shows that openly expressed, inter-parental hostility or aggression is the most harmful and that children are more upset by unresolved conflict between parents and by conflict that is about children themselves than by conflict that is about non-child-related issues. Features of the discord such as intensity, how it is resolved, threat to the child and self-blame felt by the child, rather than frequency *per* se, have been found to be important (Grych *et al.,* 1992). Thus, how the parental discord is handled determines how children and young people are affected by it. Interestingly, whilst a cross-sectional interview study showed that children raised in high-conflict homes have more disruptive behaviour than those of low-conflict homes, those children with close relationships (support) with siblings or grandparents had lesser levels of disruptive behaviour, although it is noted that other explanations for these results exist (Jenkins, 2008). Family conflict is also a risk factor for childhood major depressive disorder (Fryers, 2007). There is variability in the extent to which children are negatively affected and amongst other things, the quality of the parent-child relationship is a partial mediator of the relationship between marital conflict and child mental health (Jenkins, 2008).

Both families classified as having poor functioning (which includes relationships and discord) and frequent punishment strategies (including non-physical) are associated with higher childhood mental health problem rates (Green *et al.*, 2005; Meltzer, 2008). In contrast, the absence of child psychopathology is associated with a combination of rewarding and non-punitive parenting strategies.

Sibling relationships are also important; aggression in sibling relationships affects the development of disorder in children whilst a longitudinal study has shown that affectionate relationships decrease the risk of emotional disorders in response to life events (Jenkins, 2008). Healthy adolescent adjustment is also influenced by the quality of sibling relationships (Proctor *et al.*, 2009). Siblings can also be beneficial in the transition from primary to secondary school (if they are at the secondary school) acting as a resource to help those going through the transition gain confidence in the new school and a link to new networks and resources (Holland *et al.*, 2007).

As suggested above, other factors can impact on family relations linking this construct to other constructs within the framework, especially those in the structural domain (see section 3.6 Contextual Constructs - Structural). Economic disadvantage for example is a predictor of the quality of relationships in the home during childhood (see references cited in Stewart-Brown and Shaw, 2004). Physical punishment is more common among children living in economically disadvantaged circumstances whilst parental encouragement and support are more common among parents in professional classes. Although economic disadvantage makes high quality relationships more difficult to develop and sustain, it is agreed that relationship quality is a risk factor for poor social development independent of disadvantage (see references cited in Stewart-Brown and Shaw, 2004).

## Indicators

| Family relations | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| *Parent-child relationship* [R] | • *Percentage of children aged from birth to 3 years with a positive parent-child relationship[1]* | • *No suitable data source identified* |
| *Nurturing adult* [R] | • *Percentage of children and young people aged 17 years and under who have at least one caring, competent, consistent adult who they can confide in* | • *No suitable data source identified* |
| Family meals | • Percentage of P7, S2 and S4 pupils who eat a meal with one or both parents 4 or more times a week[2] | • Health Behaviour in School-aged Children Survey (HBSC) |
| Talking to parents | • Percentage of P7, S2 and S4 pupils who find it very easy or easy to talk to their mother or stepmother (or father's partner) about things that really bother them[2]<br>• Percentage of P7, S2 and S4 pupils who find it very easy or easy to talk to their father or stepfather (or mother's partner) about things that really bother them[2] | • HBSC<br><br><br>• HBSC |
| Treatment by parent(s) | • Percentage of P7, S2 and S4 pupils who felt that their parent(s) treated them fairly very often or always in the last week[2] | • HBSC |
| *Parental discord* [R] | • *Assessment(s) of the impact of parental discord on children and young people, measured by features of the parental discord such as frequency, intensity and resolution, threat to the child and self-blame felt by the child* | • *No suitable data source identified* |
| *Caring for a family member* [R] | • *Assessment of whether older children and young people with significant caring responsibilities perceive their caring experience as negative*<br>• *Assessment of whether older children and young people with significant caring responsibilities perceive their caring experience as positive* | • *No suitable data source identified*<br><br>• *No suitable data source identified* |

[1] This indicator covers attachment felt by the child, a specific aspect of early parent-child relationships.
[2] P7, S2 and S4 pupils are circa 11, 13 and 15 year olds, respectively.
[R] Indicates that there is a recommendation attached to the indicator.

## Recommendations

### Parent-child relationship

An assessment of the quality of the parent-child relationship, including that for fathers, at the population level is required nationally in Scotland. A means of assessing this should be identified or developed and the data collected in a routine national data collection system(s) in Scotland.

Such an assessment would provide a broad assessment of relationship issues and could cover attachment felt by the child,[28] a very specific marker of the quality of the parent-child relationship from a child's perspective, ideally covering the period from birth until the third birthday. Whilst various parent-child relationship scales that extend to 3 years of age have been delivered at the population level through surveys such as the Millennium Cohort Study and Sure Start, these require sufficient validation.

### Nurturing adult

There is a need to collect data on the presence of a nurturing adult (a caring, competent and consistent adult who can be confided in) in a child's life nationally in Scotland. A means of assessing this should be identified or developed and the data collected in a routine national data collection system in Scotland.

### Parent discord

There is a need to collect data on parental discord from a child's perspective nationally in Scotland. A means of assessing this should be identified or developed and the data collected in a routine national data collection system in Scotland.

Assessment of parental discord from a child's perspective should specifically cover the nature of the inter-parental conflict covering such things as frequency, intensity and resolution and feelings of threat to the child and self-blame. One such scale is the validated and widely cited Children's Perception of Interparental Conflict Scale (CPIC) (Grych *et al.*, 1992), developed specifically to assesses multiple aspects of conflict from a child's perspective. However, at 49 items long it is unsuitable for inclusion in national survey assessments but could be a starting point for identifying a suitable survey question(s) if an appropriately short scale is not available for the assessment nationally.

### Caring for a family member

More detailed information should be collected on a national basis about the nature of a child's caring experience to allow meaningful indicators to be established. A suitable means for collecting more in-depth data on caring needs to be identified or developed and the data collected in a routine national data collection system in Scotland.

Whilst data on the caring responsibilities that children and young people undertake are available from the Scottish Household Survey (and will also be from the Scottish Health Survey from 2012), this data provide statistics on the number of carers and the number of hours they spend caring, rather than the quality of caring experience, which is important for a child's mental health. A suitable means for collecting more in-depth data on caring needs to be identified or developed.

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[28] Currently there is no identified scale which can be delivered at the population level through surveys to assess attachment (Lim *et al.*, 2010). Developmental work to either create an attachment measure *de novo* or to further validate existing promising scale would be a substantial undertaking.

## Other key national Scottish indicators

| Family relations | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| *Parent-child relationship* **and** *Nurturing adult* | |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Mental and emotional wellbeing |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Relationships, sexual health and parenthood |
| Early Years Framework | • Percentage of mothers who have good maternal attachment, Growing up in Scotland Survey[29] |
| Equally Well EY5 | • Improved parent-child relationships through positive parenting approaches and skills |
| GIRFEC | • SHANARRI Indicators – Safe, Nurtured, Achieving |
| **Talking to parents** | |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Relationships, sexual health and parenthood |
| GIRFEC | • SHANARRI Indicators – Nurtured, Achieving, Respected |
| *Parental discord* | |
| GIRFEC | • SHANARRI Indicators – Safe |
| *Caring for a family member* | |
| Adult Mental Health Indicator Set | • Percentage of adults who provide 20 or more hours of care per week to a member of their household or to someone not living with them, excluding help provided in the course of employment, Scottish Health Survey |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Relationships, sexual health and parenthood |
| GIRFEC | • SHANARRI indicators - Included |

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[29] Note that this survey does not provide monitoring trends.

## 3.3.2  Family structure

### Working understanding

This construct refers to the composition or type of the family in which a child resides, where the family does not necessarily relate to the biological family of a child or young person.

It is especially important for this construct that it be remembered that the evidence-base and indicators are set at the population level and that it is often the constellation of experiences and multiplicative interaction of factors which go with certain family structures that creates the association with mental health.  There are links to sections 3.6.1 Equality and 3.6.2 Social inclusion.

### Rationale

Characteristics of the family structure have been found to be associated with mental health problems in children and young people.  However, caution is required, as although family structure is associated with risk of mental health problems, differences in childhood mental health problems by family structure may reflect different social and financial circumstances. While studies in Australia, Great Britain and USA all show that children of lone parent families are twice as likely to have a mental disorder than those of two parent families, after adjusting for socio-economic status variables the significant relationship no longer exists (Meltzer, personal communication).  Lone parent families, therefore, have a greater tendency to have children with mental health problems *because* lone parents are more likely to be unemployed, have lower incomes and be receiving state benefits, which are primarily associated with childhood psychopathology (see sections 3.6.1 Equality and 3.6.2 Social inclusion).  For instance, a recent report highlighted that lone parent families are at higher risk of experiencing recurrent poverty (Tomlinson and Walker, 2010).  Other studies show that socio-economic status, family relationships and social stress (e.g. isolation, lack of support) account for most of the association (Layard and Dunn, 2009).  The quality of family relationships also has a bearing on the impact of family structure (see section 3.3.1 Family relations).  For instance, a consistent finding is that children in single parent families who possess adequate and favourable information about their absent parent do better in terms of behaviour, academic achievement and emotional wellbeing than those with inadequate, damaging or no information (Owusu-Bempah, 1995 cited in Aldgate *et al*, 2006).

The 2004 Office for National Statistics survey of mental health of children and young people aged 5 to 16 years in Great Britain found the prevalence of mental health problems among children in lone parent families (after adjustment for other variables) was higher than that of children from two parent families (married or co-habiting) (Green *et al.*, 2005).  Children in reconstituted families (defined as stepchildren being present) also had higher rates of mental health problems than in first marriage families.  Specifically, for children with an:

- emotional disorder – the proportion living with widowed, divorced or separated lone parents was twice that of those with no such disorder
- conduct disorder – the proportion living with cohabiting, single or previously married lone parents was higher than for those with no such disorder.  There were also indications that they were more likely to be living in households with a large number of children
- hyperkinetic disorder – they were more likely to live with single or previously married lone parents.

The three-year follow-up indicated that there was an increased likelihood of developing an emotional disorder among children and young people in families with one parent when compared with those in a traditional family or in reconstituted families, and increased odds for those in families where there had been a change in the number of parents between the two surveys compared to those having two parents at both times. The odds of developing an emotional disorder was also reduced for children in a family of two children, compared with families of one child, or three or more. For conduct disorder, factors linked with an increased likelihood of the onset of the disorder among children included: family type; a change in the number of parents; reconstituted family; one parent at follow-up (whether or not the family had contained two parents at the outset); and the number of children and young people in the household (more being linked with greater risk). The number of children and young people in the household also appeared to be associated with persistent conduct disorder (Parry-Langdon *et al.*, 2007).

Similar evidence has been found in other studies. For example, the Finnish birth cohort 1981 found a precursor of psychiatric disorder at age 18 years included not living with 2 biological parents at the age of 8 years and the British 1958 cohort that a single parent family situation predicted depression in men at 33 years (Buchanan *et al.*, 2000 cited in Fryers, 2007). It has also been shown in a USA study that several aspects of family structure, including living with other relatives, non-relatives and guardians; living with fathers only; living with mothers and another adult(s), are negatively related to life satisfaction (Proctor *et al.*, 2009).

Teenage parenthood is associated with a number of negative outcomes, although these are not universal. It is, however, important to note that teenage pregnancy and parenthood is not in itself a social problem, for some it can be a positive and life-enhancing experience, particularly in the later teenage years, indeed some young people make positive choices to become parents early, the problem is the social disadvantage and exclusion that it is linked to both as consequences and as contributing factors (Swann *et al.*, 2003; Harden *et al.,* 2006 and 2009).

Teenage or early parenthood is more likely to be associated with adverse social and health outcomes than pregnancies or parenting at a later age and the association remains after adjusting for pre-existing social, economic, and health problems. Teenage mothers have been found to suffer from poorer mental health in the three years after giving birth compared with older mothers or teenage non-mothers, forty per cent to have an episode of depression within one year of childbirth, and may be up to three times as likely to suffer postnatal depression than their older counterparts (Swann *et al.*, 2003; Berthoud *et al.,* 2004). This not only affects the wellbeing of the young mother but can also affect her ability to be an attentive and nurturing parent, which can lead to an increased risk of behavioural difficulties for her child (Berthoud *et al.,* 2004). Additionally, pregnant teenagers often find themselves in the middle of family conflict and relationship breakdown is more common among teenagers than older parents (Swann *et al.*, 2003). Indeed, there is a greater likelihood of being a lone parent for teenage mothers than for mothers in the general population.

Teenage parents are often excluded from education, training and employment, particularly when they are already socially disadvantaged and early parenthood, for both young men and young women, is strongly associated with adverse outcomes in later life. This includes lack

of qualifications, living in social housing and, for young women, higher depression scores and being in receipt of benefits (Harden *et al.,* 2006). Health, economic and employment outcomes for young fathers post-parenthood mirror, to some extent, those of young mothers, however, there is far less evidence on this group (Swann *et al.*, 2003).

Teenage mothers (and, although there is less evidence about young fathers, teenage parents in general) are more likely to come from backgrounds with experience of poverty, broken families, problems at school and poor health prior to pregnancy. They are also more likely to experience these things as teenage parents. Similarly, children of teenage mothers are more likely to experience being in a lone parent family, and are generally at increased risk of living in poverty, poor housing and suffering bad nutrition (Swann *et al.*, 2003). They may also suffer as young adults in terms of lower educational attainment, a higher risk of economic inactivity and are more likely to become teenage parents themselves (Swann *et al.*, 2003; Berthoud *et al.,* 2004).

Although little researched, having a parent in prison has been shown to impact on children and young people in many ways and can leave a lifelong mark on their lives (Loureiro and da Vinci Fellow, 2009). Whilst there is evidence that in some cases the removal of a parent from a child's life through imprisonment may be beneficial for a child, on the whole the event is highly detrimental. The effects include post-traumatic stress disorder, anxiety, melancholy, regressive behaviour, anger, defiance and behavioural misconduct, frequent deterioration of the parent-child relationship and having to cope with associated stigma (see section 3.3.1 Family relations and section 3.6.3 Discrimination). The impact on a child will vary depending on factors such as the age of the child, whether it is the mother or father who is imprisoned (linked to which parent was the primary care giver) and whether the child maintains contact with the parent.

### Indicators

| Family structure | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Lone parent family | • Percentage of children and young people aged 17 years and under living in lone parent households | • Scottish Household Survey |
| *Contact with non-resident birth parent* [R] | • *Percentage of children and young people in frequent contact with their non-resident birth father*<br>• *Percentage of children and young people in frequent contact with their non-resident birth mother* | • *No suitable data source identified*<br>• *No suitable data source identified* |
| Teenage parents | • Live births per 1,000 females aged 15 years and under in the past year | • National Records of Scotland |
| Parental imprisonment | • Children and young people who had a father in prison per 1,000 aged 17 years and under in the past year[1]<br>• Children and young people who had a mother in prison per 1,000 aged 17 years and under in the past year[1] | • Scottish Prison Survey[2]<br><br>• Scottish Prison Survey[2] |

[1] It is unknown from the self-report data if a prisoner is the biological parent, step-parent or guardian

etc of the child.

[2] Administrative data on prisoners are being improved and could include information on children.  This could be a more accurate source of data in the future than the Scottish Prison Survey which is self-report.

## Recommendation

### Contact with non-resident parent

There is a need to collect data on the frequency of contact children and young people have with non-resident birth parents, especially with fathers, nationally in Scotland.

There are no suitable data currently available on the contact children and young people have with non-resident birth parents.  A means of assessing this should be identified or developed and the data collected in a routine national data collection system in Scotland.

### Other key national Scottish indicators

| Family structure | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| **All the Family structure indicators** | |
| GIRFEC | • SHANARRI indicators - Included |
| **Teenage parents** | |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Relationships, sexual health and parenthood |

### 3.3.3  Parental healthy living

**Working understanding**

This construct covers health behaviours of those acting as father, mother or guardian of children and young people, which impact on children and young people's mental health.  This includes parental behaviours that influence the child during pregnancy, for example, smoking and alcohol consumption, as well as those important throughout childhood such as drug and alcohol use.[30]

This construct overlaps with 3.3.1 Family relations and 3.3.4 Parental Health.

**Rationale**

Parental health behaviours are key factors that are associated with the mental health status of children and young people.  These behaviours can have a significant impact from pre-birth and throughout childhood.

Mental development starts in the womb and the lifestyle of pregnant women can have important effects on the foetus via processes, referred to as *in utero* programming, that are likely to affect the child's future mental health (Packard, 2008 cited in Kirkwood *et al.*, 2008). Particularly crucial factors include maternal diet, smoking, drugs and alcohol exposure which affect foetal brain development, increasing the likelihood of long-term neurological and cognitive-emotional development problems (e.g. lower intelligence, attention deficit and hyperactivity disorder, conduct problems, poorer school achievements) (Advisory Council on the Misuse of Drugs, 2003; World Health Organization *et al.*, 2004; Foresight, 2008; Kirkwood *et al.*, 2008).  The socio-economic status of the mother is also an associated factor, although its effects are thought to be mediated through a complex array of immediate factors such as housing and stress.  Parenting capacity (typically parents having chaotic and unpredictable lives) and the impact on the parent-child relationship is also frequently another major linked issue (see section 3.3.1 Family relations).

Evidence indicates that early life nutrition can affect neurocognitive development and that poor nutrition can lead to slowed body growth and effects on cognitive and behavioural development, which are both immediate and long-term (Meeks-Gardner and Grantham-McGregor, 1994 cited in Tomlinson *et al.*, 2009).  Studies have identified a clear link between general nutritional deficiency in mothers and the later development of schizophrenia in their children (St Clair *et al.*, 2005 cited in Tomlinson *et al.*, 2009).

There is strong evidence that maternal smoking in pregnancy is associated with a wide range of effects on the foetus including an increased risk of psychological problems (both emotional and behavioural) (Wakschlag *et al.*, 2002 cited in Advisory Council on the Misuse of Drugs, 2003; Button *et al.,* 2007; Jenkins, 2008; Learning and Developmental Disabilities Initiative, 2008; Hutchinson *et al.*, 2010).   The problems most frequently associated are attention problems, hyperactivity and conduct problems.  These have been found in children as young as two and three years old and more consistently in male off-spring than female.  There is

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[30] This construct covers problematic alcohol and drug use but there is overlap with more severe alcohol and drug misuse i.e. dependency syndromes that are classified as mental health problems. The latter are covered under 3.3.4 Parental health.

also some evidence for an association of prenatal exposure with substance use problems and social functioning (Paus, 2008 cited in Kirkwood *et al.*, 2008).

Smoking cannabis during pregnancy is also associated with subtle changes in the child's neurological and psychological performance that may persist into later life, although it is unclear whether this is due to the tobacco with which cannabis is often smoked (Advisory Council on the Misuse of Drugs, 2003).

Alcohol consumption during pregnancy can lead to foetal alcohol spectrum disorder (FASD) in the child, the most extreme cases being classified as foetal alcohol syndrome (FAS) associated with heavy maternal alcohol use (Advisory Council on the Misuse of Drugs, 2003; Harris, 2008; Learning and Developmental Disabilities Initiative, 2008; Kirkwood *et al.*, 2008). Several studies have shown an increased risk for a range of serious developmental problems including delayed neurological development, growth impairment, cognitive and behavioural disorders, psychological dysfunction and poor psychosocial adaptation among individuals with FAS. Longitudinal studies suggest that individuals with FASDs are at a greatly increased risk for adverse long-term outcomes including mental health problems (O'Connor and Paley, 2009). Attention problems, conduct disorder, alcohol or drug dependence, depression and psychotic episodes, anxiety disorders, eating disorders and posttraumatic stress disorder have been noted in those exposed to alcohol during pregnancy. The significance of early neurobiological effects of maternal drinking during pregnancy is also apparent in the impact they may have on early mother-child interactions (O'Connor and Paley, 2009). However, the degree to which the deficits derive from prenatal alcohol exposure, rather than from post-birth neglectful and/or non-stimulating environments often provided by alcoholic mothers who continue to drink, is debated (Kirkwood *et al.*, 2008).

Research has yet to definitively determine the safe levels of alcohol intake in pregnancy but no consumption of alcohol from conception (many argue also when trying to conceive) to delivery guarantees no foetal alcohol harm. Scotland's Chief Medical Officer advocates that women who are pregnant, or trying to conceive, should avoid drinking alcohol. After birth, problematic alcohol consumption by parents can also impact on a child's mental health (the impact of severe parental alcohol misuse i.e. dependency syndromes classified as mental health problems is covered under 3.3.4 Parental health).

Children of problem drug users face possible exposure to many sustained or intermittent hazards, as a result of parental drug use, which can impact on their mental health (Advisory Council on the Misuse of Drugs, 2003). These include:
- poverty and other financial and legal consequences
- exposure to physical violence, emotional abuse or neglect and social isolation
- chaotic and unpredictable family life with poor parent-child bonds
- dangerous and inappropriate parenting practices; intermittent or permanent separation
- inadequate accommodation and frequent changes in residence
- interrupted or otherwise unsatisfactory education and socialisation
- witness of parental drug use or other inappropriate adult behaviour
- greater than normal responsibility in home including acting as a carer
- chronic parental illness as a result of drug use.

The effects on a parent's child-rearing capacity have similarities to those resulting from parental mental health problems and alcohol dependency (see section 3.3.4 Parental health). Indeed the vast majority of problem drug-users smoke tobacco, many are heavy users of alcohol, live in disadvantaged communities and have significant mental health problems.

The adverse consequences for children include: a wide range of emotional, cognitive, behavioural and other psychological problems; early substance misuse and offending behaviour; and poor educational attainment (see references cited in Advisory Council on the Misuse of Drugs, 2003). Much of the potential for parental drug use to impact on the child in their early months after birth lies in the way it affects the parent-child relationship with the physical, social and emotional needs of the child being jeopardised. There is inconclusive evidence regarding the impact of parental drug use on early behavioural and cognitive development but emotional insecurity is evident early in life with hyperactivity, inattention, impulsivity and aggression being more common as well as problem attachment to the main caregiver. From 3 to 4 years onwards depression, anxiety and behaviour problems are also noted. In their teens, friendships may be restricted, social isolation severe and those with a caring role may feel stigmatised (see section 3.3.1 Family relations). The persistent impact of parental problems leads to a higher likelihood of emotional disturbance and behavioural disorders, including bullying and offending behaviour.

### Indicators

| Parental healthy living | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Maternal smoking in pregnancy | • Percentage of mothers who smoked during pregnancy (women recorded as 'current smoker' at antenatal booking appointment) in the past year | • ISD Scotland, SMR02 |
| *Maternal alcohol use in pregnancy [R]* | • *Percentage of mothers who drank alcohol during pregnancy* <br> • *New-borns affected by alcohol (with foetal alcohol spectrum disorder)* | • *No suitable data source identified* <br> • *No suitable data source identified* |
| *Maternal drug use in pregnancy [R]* | • *Percentage of mothers who took drugs during pregnancy* | • *No suitable data source identified* |
| *Parental problematic alcohol consumption [R]* | • *Prevalence of children and young people aged 15 years and under affected by parental alcohol misuse[1, 2]* | • *Scottish Government, Scottish Health Survey analysis in development* |
| *Parental problematic drug use [R]* | • *Prevalence of children and young people aged 15 years and under affected by parental drug misuse[1, 2]* | • *ISD Scotland and Scottish Government analysis in the future* |

[1] Indicator under development by the Scottish Government. The suitability of this as an indictor for monitoring trends will be assessed.

[2] Parent will be aged 16 years and above.

[R] Indicates that there is a recommendation attached to the indicator.

## Recommendations

### Maternal drug and alcohol use in pregnancy

Robust data on maternal drug and alcohol use in pregnancy and the effect of alcohol use in pregnancy are required. Established work to improve national data collection should be monitored to determine the suitability of the improved data.

Current SMR02 data from ISD Scotland are not robust enough for monitoring purposes. However, work underway, which will lead to improved SMR02 data and the Scottish Government policy focus on foetal alcohol spectrum disorder, with an associated programme of work to enhance surveillance and identification of children with foetal alcohol spectrum disorder, could mean that data will become suitable for providing robust indicators of maternal drug and alcohol use in pregnancy in the future. This work should be monitored to determine the suitability of the improved data.

### Parental problematic alcohol/drug consumption

Work being undertaken by the Scottish Government to develop indicators for/estimates of children and young people affected by parental substance misuse (CAPSM) should be assessed to determine whether it is suitable for the data-less indicators of parental problematic alcohol/drug consumption.

### Other key national Scottish indicators

| Parental healthy living | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| **Maternal smoking in pregnancy** | |
| Early Years Framework | • Percentage of mothers smoking during pregnancy, ISD Scotland |
| GIRFEC | • SHANARRI Indicators – Safe, Healthy |
| National Performance Framework | • Reduce the percentage of adults who smoke - Proportion of adults aged 16+ years who are current smokers, Scottish Household Survey |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • Mothers smoking during pregnancy – Women recorded as a 'current smoker' at antenatal booking appointment: 3-year total and percentage of all live singleton births, ISD Scotland (SMR02) |
| *Maternal alcohol use in pregnancy* | |
| Early Years Framework | • Percentage of mothers drinking alcohol during pregnancy, Growing Up in Scotland Survey[31] |
| GIRFEC | • SHANARRI Indicators – Safe, Healthy |
| *Maternal drug use in pregnancy* | |
| Early Years Framework | • Percentage of mothers misusing drugs during pregnancy, ISD Scotland[32] |
| Early Years Framework | • Number of children born with drug withdrawal problems, ISD Scotland[32] |
| GIRFEC | • SHANARRI Indicators – Safe, Healthy |

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[31] Note that this survey does not provide monitoring trends.
[32] Note that this data was not used for the Children and Young People's mental health indicators as it was not considered robust enough for national monitoring.

| | |
|---|---|
| **Parental problematic alcohol consumption** | |
| Early Years Framework | • Prevalence rate of children affected by parental substance misuse (CAPSM), ISD Scotland and Growing Up in Scotland Survey[31] |
| GIRFEC | • SHANARRI Indicators – Safe, Nurtured, Included |
| **Parental problematic drug consumption** | |
| Early Years Framework | • Prevalence rate of children affected by parental substance misuse (CAPSM), ISD Scotland and Growing Up in Scotland Survey[31] |
| GIRFEC | • SHANARRI Indicators – Safe, Nurtured, Included |
| National Performance Framework | • Reduce the number of individuals with problem drug use - The estimated number of adults (15 – 64) who misuse opiates and/or benzodiazepines (including illicit methadone) in Scotland, range of sources in studies Estimating the National and Local Prevalence of Problem Drug Misuse in Scotland |

### 3.3.4  Parental health

### Working understanding

This construct covers the health, both mental and physical, of those fulfilling the role of father, mother or guardian of children and young people.  In the case of mothers, this includes their mental health during pregnancy.  It also covers drug and alcohol dependency.[33]

There are overlaps with section 3.3.1 Family relations and 3.3.3 Parental healthy living.

### Rationale

Poor parental health (both mental and physical) is related to higher rates of mental health problems in children and young people (World Health Organization *et al.*, 2004; Fryers, 2007; Jenkins, 2008; Stein *et al.*, 2008; see references cited in Ramchandani and Psychogiou, 2009).  Substantial evidence indicates that mental health problems in parents are associated with an increase in a range of mental health problems in children, and children and young people identify this as an important issue for their mental health (Shucksmith *et al.*, 2009).  From the perspective of children and young people, concern for parents with mental health problems (and in some cases taking on the role of carer) may have a detrimental effect on their own mental health, for example making them feel isolated and different from peers (see section 3.3.1 Family relations).

National surveys of children aged 5 to 15/16 years in Great Britain have shown that parents of children with a mental health problem are more likely than other parents to have a General Health Questionnaire-12 (GHQ-12) score indicative of a possible mental health problem[34] (Meltzer *et al.*, 2000 cited in Meltzer, 2008; Green *et al.*, 2005; Parry-Langdon *et al.*, 2007).  Further, the proportion of children with a mental health problem increases steadily as their mother's GHQ-12 score increases (indicating a greater likelihood of a common mental health problem).  Maternal mental health (particularly if assessed as a persistently high GHQ-12 score) is associated (strongly) with an increased likelihood of persistence of mental health problems in children and young people and the onset of a mental health problem is more likely among those whose mothers have a high GHQ-12 score.  The risk of child behaviour problems has also been found to increase with the number of areas in which the mother reports difficulties such as mental health, substance use, or domestic violence (Whitaker *et al.*, 2006 cited in Meltzer, 2008).

Many studies suggest an increased risk of major depression and anxiety for offspring of those with serious depression, affecting children of all ages.  The more severe and chronic the parental depression the greater the risk to the offspring.  For instance, children of depressed parents are at greater risk of anxiety, major depressive disorders and substance dependence, which begin early (from adolescence) and continue throughout adulthood (Weissman *et al.,* 2006 cited in HM Government, 2011).  Longitudinal studies have identified associations between maternal postnatal depression and adverse child outcomes including problems in the mother-infant interaction, and higher rates of emotional and behavioural problems as

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[33] Severe alcohol and drug misuse are classified as mental health problems when they meet the criteria in the WHO International Classification of Diseases (ICD-10) under 'mental and behavioural disorders due to psychoactive substance use'. This covers dependency syndromes.  Note that problematic alcohol and drug use is included in 3.3.3 Parental Healthy Living.

[34] A higher GHQ-12 score indicating a greater likelihood of a common mental health problem.

children approach school age, delayed cognitive development, and increased risk of depression and anxiety disorders in adolescence (see references cited in Ramchandani and Psychogiou, 2009). A higher risk of mood and anxiety disorders has also been identified (Stein *et al.*, 2008). Children of parents with anxiety disorders are similarly at high risk for anxiety, while those with parents with bipolar disorder are at higher risk of bipolar and early onset depression. Parental alcoholism is also associated with higher risks amongst children e.g. anxiety, mood, abuse and/or dependence disorders and parents with schizophrenia are at greater risk of having a child who develops it and studies also suggest a raised risk of other mental health problems (Stein *et al.*, 2008).

Transmission of risk of a mental health problem to offspring has a genetic (as well as environmental) component for some mental health problems. In addition, parental mental health problems, including alcoholism, can have deleterious effects on child-parent interactions and thus the parent-child relationship (see section 3.3.1 Family relations). It is suggested that much of the risk for child mental health from parental mental health problems results from the effect of the latter on parenting behaviours (World Health Organization *et al.*, 2004; Fryers, 2007; Irwin *et al.*, 2007; Sandberg and Rutter, 2008). For example, parental depression is associated with more problematic attachment processes, lower levels of warmth, monitoring and discipline, and less verbalisation to children with later effects on vocabulary (Jenkins, 2008). There may also be risks such as parental conflict brought about as a result of a parental mental health problem.

Maternal mental health during pregnancy is also an important factor in determining a child's mental health. Maternal mental health problems during pregnancy increase the risk of adverse pregnancy outcomes for the child, which includes their emotional and cognitive health as well as neuro-developmental problems. Maternal depression during pregnancy may have negative effects on the developing foetus (Jenkins, 2008; Stein *et al.*, 2008). Maternal depression is associated with increased delay in early childhood development and emotional and behavioural problems in childhood and maternal stress in pregnancy with adverse mental health outcomes for the foetus, infant and throughout life including behavioural problems (Correla and Linhares, 2007; Deave *et al.,* 2008; Henshaw *et al.*, 2009 cited in HM Government, 2011). High levels of prenatal maternal anxiety have also been found to be associated with increased risk of emotional and behavioural problems in childhood and adolescence (Correla and Linhares, 2007; Jenkins, 2008; Stein *et al.*, 2008). For instance, the Avon Longitudinal Study of Parents and Children (ALSPAC) found evidence that antenatal stress/anxiety predicts behavioural/emotional problems in children at age 4 years and continued to remain significantly associated at 81 months suggesting that antenatal stress/anxiety has a programming effect on the foetus which lasts at least until middle childhood (after accounting for covariates) (O'Connor *et al.,* 2002; O'Connor *et al.,* 2003). Maternal alcoholism is a further hazard as drinking in pregnancy is associated with foetal alcohol spectrum disorder (FASD) (see section 3.3.3 Parental healthy living).

Most research on effect of mental health problems of parents on children's mental health has focused on mothers but a recent review suggests that most psychiatric disorders that affect fathers are associated with an increased risk of behavioural and emotional difficulties in their children, similar in magnitude to, and independent from, that due to maternal psychiatric disorders (Ramchandani and Psychogiou, 2009). This includes paternal depression during

the postnatal period, which is found to be associated with an increased chance of behavioural and emotional problems in children. Some findings indicate that boys are at greater risk than girls to the impact of paternal mental health problems and that paternal disorders, compared with maternal disorders, might be associated with an increased risk of behavioural rather than emotional problems.

Evidence also indicates that the physical health of parents is associated with an increase risk of a range of psychological disturbances in children, including emotional and behavioural problems and also low self-esteem and life satisfaction (Pederson and Revenso, 2005; Coldstream and le May, 2008; Stein *et al.*, 2008; Bogosain *et al.,* 2010; Sieh *et al.,* 2010). A relatively consistent increase in emotional problems (anxiety and depression) has been found in adolescents of parents with cancer. Overall, children in families where a parent has a long-term physical illness have higher rates of anxiety and depression than children in 'healthy' families but broadly similar rates to those seen in families where a parent has a mental health problem. The extent of the increased risk is, however, dependent on a number of mediating factors e.g. family structure, social situation, functioning and developmental stage of child. The impact of a parent with a physical health problem may not, however, always be negative as a caring role may lead to positives such as enhanced self-esteem, gaining a sense of fulfilment and building up a coherent support system (Coldstream and le May, 2008; see references cited in Sieh *et al.,* 2010 and caring in section 3.3.1 Family relations).

## Indicators

| Parental health | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Parental mental wellbeing | • Mean score for parents of children aged 15 years and under on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS)[1, 2] <br> • *Assessment of mother's mental wellbeing during pregnancy* [R] | • Scottish Health Survey <br><br> • *No suitable data source identified* |
| Parental common mental health problems | • Percentage of children and young people aged 15 years and under who have a parent who scores 4 or more on the General Health Questionnaire-12 (GHQ-12) (a score of 4 or more indicates a possible mental health problem over the past few weeks)[2] <br> • *Percentage of mothers who had a common mental health problem during pregnancy* [R] | • Scottish Health Survey <br><br><br><br> • *No suitable data source identified* |
| *Postnatal depression* [R] | • *Percentage of mothers who had postnatal depression* <br> • *Percentage of fathers who had postnatal depression* | • *No suitable data source identified* <br> • *No suitable data source identified* |
| Parental alcohol dependency | • Percentage of children and young people aged 15 years and under who have a parent who scores 2 or more on the CAGE questionnaire (a score of 2 or more indicates possible alcohol dependency in the previous 3 months)[2] | • Scottish Health Survey |

| Parental limiting long-standing physical condition or disability | • Percentage of children and young people aged 15 years and under who have a parent with a long-standing physical condition or disability that has troubled them for at least 12 months, or is likely to affect them for at least 12 months, which limits their daily activities[2] | • Scottish Health Survey |
|---|---|---|

[1] Where an indicator is based on the mean, the mean will be used if the data are normally distributed; if not then the median is more appropriate. The appropriateness of the mean will be assessed on analysis of the data.

[2] Parent will be aged 16 years and above.

[R] Indicates that there is a recommendation attached to the indicator.

## Recommendations

### Maternal mental health during pregnancy

There is a need for routine national data on maternal mental health (both mental health problems and mental wellbeing) during pregnancy. National opportunities should be explored.

Existing scales such as the General Health Questionnaire (GHQ-12) to assess possible mental health problems and the Warwick Edinburgh Mental Well-being Scales (WEMWBS) to assess mental wellbeing should be considered where an opportunity arises for data collection in this population.

### Postnatal depression

There is a need for national data to be collected and reported on for postnatal depression both for mothers and fathers. National possibilities should be explored.

The indicator set requires that data be collected and reported on for postnatal depression both for mothers and fathers. While the Edinburgh Postnatal Depression Scale score is routinely collected amongst postnatal women and recorded in midwifery and health visitor notes, these are not routinely recorded electronically nor collated nationally. Opportunities should be sought to introduce a national data collection system for postnatal depression for mothers and fathers.

### Other key national Scottish indicators

| Parental health | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| **Parental mental wellbeing** | |
| National Performance Framework | • Improve mental wellbeing - Mental wellbeing derived from average score on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) of adults aged 16+ years, Scottish Health Survey |
| **Parental common mental health problems** | |
| Early Years Framework | • Parental health behaviours - Percentage of children under 16 living in households where their parent(s) have a high GHQ-12 score (indication of possible psychiatric disorder), Scottish Health Survey |

| Early Years Framework | • Percentage of parents (mothers) reporting mental ill-health on at least one occasion in the first 4 years of their child's life, Growing up in Scotland Survey[35] |
|---|---|
| GIRFEC | • SHANARRI Indicators – Safe, Included |
| ***Postnatal depression*** | |
| Early Years Framework | • Percentage of mothers experiencing Postnatal Depression within the first 3 months after giving birth, Growing up in Scotland Survey[35] |
| GIRFEC | • SHANARRI Indicators – Safe, Nurtured |
| **Parental alcohol dependency** | |
| GIRFEC | • SHANARRI Indicators – Safe, Included |
| National Performance Framework | • Reduce alcohol related hospital admissions - The number of general acute inpatient and day case discharges per 100,000 population with an alcohol-related diagnosis, ISD Scotland |
| **Parental limiting long-standing physical condition or disability** | |
| Early Years Framework | • Parental Health Behaviours – Percentage of children under 16 living in households where their parent(s) have a long-term limiting illness, Scottish Health Survey |
| GIRFEC | • SHANARRI Indicators – Included |

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[35] Note that this survey does not provide monitoring trends.

## 3.4 Contextual Constructs – Learning Environment

### 3.4.1 Engagement with learning

**Working understanding**

This construct covers the opportunity for participation and engagement in the learning environment from the more formal e.g. school, including pre-school education, to the more informal home learning environment.

There is overlap with section 3.2.1 Learning and Development and 3.6.2 Social inclusion.

**Rationale**

Evidence from the EPPSE study (Effective Pre-school, Primary and Secondary Education Project 3-14) shows that both a more favourable early years home learning environment and high quality pre-school promote better social-behavioural outcomes (assessment based on the Strengths and Difficulties Questionnaire (SDQ) for emotional and behavioural difficulties) at younger ages, which continue to predict outcomes up to at least age 14 years (Sammons *et al.,* 2011). Early family environments are crucial to learning and development as they can provide informal learning environments that nurture the social and self-regulation skills which enable children to flourish while adverse experiences in the postnatal period can lead to cognitive impairments (Foresight, 2008). The quality of the home learning environment, including parenting practices such as reading to children, using complex language and responsiveness and warmth in interactions, avoiding directiveness and punitiveness, are associated with better outcomes (see section 3.3.1 Family relations) (Foresight, 2008).

For children's mental wellbeing, evidence indicates that ensuring that educational experiences provide opportunities for individual engagement in tasks considered fulfilling and worthwhile is crucial for those aged 5-12 (Foresight, 2008). While, disaffection with or exclusion from school are risk factors for children's mental health from an early age (Department for Education and Skills, 2001 cited in Barry and Friedli, 2008).

Children in Great Britain with mental health problems have been found to be more likely than others to have time off school, although the reasons for school absence were not clear and could be linked to the poorer health of these children (Green *et al.*, 2005). Those with emotional or conduct disorders were also much more likely than other children to have unauthorised absences and high proportions of those with a mental health problem were thought by teachers to have played truant at some time. Children with a mental health problem are also more likely than other children to have changed school other than at the usual transitions, disrupting schooling, and to have been excluded (Parry-Langdon *et al.*, 2007). The evidence available, however, makes it difficult to determine direction of causality.

**Indicators**

| Engagement with learning | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| *Pre-school home learning environment[R]* | • *Assessment of the pre-school home learning environment* | • *No suitable data source identified* |

| School attendance | • Percentage school attendance by primary and secondary pupils in the past year | • Scottish Government School Education Statistics |
|---|---|---|
| Liking of school | • Percentage of S2 and S4 pupils who like school a lot or a bit at the moment[1] | • Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) |
| | • Percentage of P7 pupils who like school a lot or a bit at present[1] | • Health Behaviour in School-aged Children Survey (HBSC) |

[1] P7, S2 and S4 pupils are circa 11, 13 and 15 year olds, respectively.
[R] Indicates that there is a recommendation attached to the indicator.

## Recommendation

### Pre-school home learning environment

Further work is required to define the pre-school home learning environment and how it might be measured for an indicator on the pre-school home learning environment.

Further work is required to define this concept and how it is best measured for an indicator. Once initial work has been completed, opportunities should be sought to collect data in a routine national data collection system.

## Other key national Scottish indicators

| Engagement with learning | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| *Pre-school home learning environment* | |
| Early Years Framework | • Early Home learning environment - Percentage of pre-school children who have been read to on 4 or more days in the past week, Growing Up in Scotland Survey[36] |
| Early Years Framework | • Early Home learning environment - Percentage of pre-school children who have done activities involving painting or drawing on 4 or more days in the past week, Growing Up in Scotland Survey[36] |
| Early Years Framework | • Early Home learning environment - Percentage of pre-school children who have played at recognising letters, words, shapes or numbers in last week, Growing Up in Scotland Survey[36] |
| GIRFEC | • SHANARRI indicators – Active, Nurtured, Achieving |
| **School attendance** | |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • School Attendance – School attendance rate (secondary, primary publicly funded schools) number attending and percentage of all pupils (based on pupil residence), Scottish Government |

[36] Note that this survey does not provide monitoring trends.

### 3.4.2 Peer and friend relationships

#### Working understanding

This construct covers two distinct and different dimensions: relationships with peers and relationships with friends:

> 'The peer group is the age and social reference group against which young people tend to compare themselves, and as such, is often located at school and in interactions with school mates. Not all of these by any means would be classed by young people as falling within the category of 'friends'…' (Shucksmith *et al.*, 2009).

It also includes bullying behaviour, which can be understood as

> 'behaviour which leaves people feeling helpless, frightened, anxious, depressed or humiliated' (Scottish Anti-Bullying Steering Group, 2010).

This behaviour can make people feel like they are being bullied or equally fearful of being bullied (Respectme, personal communication).

Bullying behaviour may be related to prejudice-based behaviours including racism, sexism or homophobia and can take many guises. As well as its more physical aspects, which include stealing and damaging belongings, bullying can be psychological, for example, verbal insults, threats, teasing, intimidation, put-downs and embarrassments. Relational bullying occurs when victims are ignored and socially isolated from peers because of rumours and manipulative behaviour by other children. Cyber-bullying, a newer aspect, is bullying behaviour that takes place via the use of Information and Communications Technology (ICT) (particularly mobile phones and/or the internet) (Childnet International, 2007; Respectme, 2007). Although not carried out face-to-face, so people often don't know the identity of the person targeting them, it is no different from, and the impact no less than, other forms of bullying. The nature of ICT use means that cyber-bullying can happen virtually anywhere, and is not confined to the classroom or playground.

This section may overlap with section 3.2.5 Emotional intelligence, 3.5.2 Social networks, 3.5.3 Social support and 3.6.3 Discrimination.

#### Rationale

Relationships with peers and friends are significant for mental health in both a positive and negative sense. Equally, mental health appears to influence a child or young person's relationships with peers and friends. Children and young people readily identify the significance of these relationships for their mental health, although they distinguish between peer and friend relationships (Harden *et al.*, 2001; Shucksmith *et al.*, 2009). Friendships and interaction with peers are considered to be one of the most important aspects of school contributing to mental wellbeing and poor relationships with peers at school is seen as a source of mental health problems, particularly where bullying behaviour and gossip are involved. Rejection by or isolation from friends and peers, due to such things as mental health problems and falling outside the norm, for example, as a consequence of a physical health problem or parental health problems necessitating a caring role by children, are also

seen as directly affecting their mental health. Important features of friendships are seen as trustworthiness, talking and listening, sharing of problems and support through difficult times, the latter being noted by troubled adolescents as a coping mechanism in helping fend off depression.

Research studies indicate that high quality friendships are positively correlated with peer-assessed sociability, provide a buffer to anxiety and stress, and that relationships with peers make children feel safe (Booth-Laforce *et al.*, 2005 cited in Lester and Russell, 2007). Close friendships may allow children to cope with a variety of community stressors (Ratner *et al.,* 2006 cited in Lester and Russell, 2007). For instance, a systematic review on the impact of poverty on children's lives, highlighted the significance of children's peer relationships and social networks outside the family as a health and psychosocial protective factor (Attree, 2004 cited in Lester and Russell, 2007). A range of longitudinal studies have highlighted the significance of peer friendships for children's wellbeing (Dougherty, 2006 cited in Lester and Russell) and a 2 year longitudinal study in USA of 5 year olds found that peer acceptance and friendship can attenuate the association between aspects of family adversity and child behavioural problems and also protected against later victimisation (Jenkins, 2008). A strong mutual relationship with a peer and being popular and accepted within a peer group are also suggested to have independent effects on a child's feelings of self-worth while inadequate peer support appears to be a risk factor for childhood major depressive disorder (Qualter and Munn, 2005 cited in Lester and Russell, 2007; Fryers, 2007).

Amongst children aged 5 to 16 years in Great Britain surveyed in 2004, those with a mental health problem were shown to find it harder to make and keep friends and to have a friend to confide in and their parents to be much more likely to express reservations about their child's friends (Green *et al.*, 2005). In the three-year follow-up survey, children and young people who had fewer friends at the outset were more likely to have a persistent conduct disorder at follow-up, and compared with children and young people without an emotional or conduct disorder at follow-up, those with fewer friendships in 2004 were more likely to have developed emotional or conduct disorder at follow-up (Parry-Langdon *et al.*, 2007).

Bullying behaviour, including cyber-bullying, which appears to be growing in prevalence (Rivers and Noret, 2009), is an issue that impacts on the mental health of children and young people with research linking poor mental health with inter-personal victimization in the form of bullying. Bullying has a detrimental effect on the mental and physical health of others, and interferes with the development of mutually satisfying inter-personal relationships for both those who engage in bullying behaviour and those who experience it. The trauma from bullying has been associated with depression and depressive symptoms, low self-esteem, poor self-concept, loneliness and anxiety, effects on sleep, enuresis (bedwetting), abdominal pain, headaches, suicidal ideation, a negative effect on adolescent life satisfaction and psychological wellbeing (Hawker and Boulton, 2000 cited in World Health Organization *et al.*, 2004; see references cited in Adi *et al.*, 2007b; Proctor *et al.*, 2009). It also creates problems with school adjustment and bonding by increasing the risk of absenteeism and lowering academic achievement. Childhood bullying can have long-term effects into adulthood and is associated strongly with anti-social behaviour.

Cross-sectional evidence indicates that there are also negative mental health correlations with participation in bullying behaviour and longitudinal studies demonstrate that the negative sequelae continue to manifest as children mature (references cited in Tarshis *et al.,* 2007).

### Indicators

| Peer and friend relationships | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| *Early years friendships* [R] | • *Assessment of the ability of children aged 3 to 4 years old to form and maintain friendships* | • *No suitable data source identified* |
| Close friends | • Percentage of S2 and S4 pupils who have at least three or more close friends[1]<br><br>• Percentage of P7 pupils) who have at least three or more close friends[1] | • Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS)<br>• Health Behaviour in School-aged Children Survey (HBSC) |
| Relationship with best friend | • Percentage of P7, S2 and S4 pupils who find it very easy or easy to talk to their best friend about things that really bother them[1] | • HBSC |
| Peer relationship problems | • Percentage of S2 and S4 pupils with a 'borderline' or 'abnormal' score on the peer relationship problems scale of the Strengths and Difficulties Questionnaire (SDQ)[1]<br>• Percentage of 4 to 12 year olds with a 'borderline' or 'abnormal' score on the peer relationship problems scale of the Strengths and Difficulties Questionnaire (SDQ)[2] | • SALSUS<br><br><br><br>• Scottish Health Survey |
| Acceptance by peers | • Percentage of P7, S2 and S4 pupils who strongly agree or agree that other pupils accept them as they are[1] | • HBSC |
| Experience of being bullied | • Percentage of P7, S2 and S4 pupils who haven't been bullied at school in the past couple of months[1] | • HBSC |
| Participation in bullying | • Percentage of P7, S2 and S4 pupils who haven't taken part in bullying another pupil(s) at school in the past couple of months[1] | • HBSC |

[1] P7, S2 and S4 pupils are circa 11, 13 and 15 year olds, respectively.
[2] Data collected by parental/guardian assessment.
[R] Indicates that there is a recommendation attached to the indicator.

### Recommendation
#### Early years friendships
Assessment of the ability of children aged 3 to 4 years old to form and maintain friendships is

required nationally. A means of assessment needs to be identified or developed and included in a routine national data collection system.

National data on peer relationship problems are available for children from 4 years onwards but not for those younger in age leaving a clear data gap on friendships for the very early years. A means of assessing early years friendships needs to be identified or developed and then included in a routine national data collection system.

### Other key national Scottish indicators

| Peer and friend relationships | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| **All the Peer and friendships indicators** | |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Mental and emotional wellbeing |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Social wellbeing |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Relationships, sexual health and parenthood |

### 3.4.3 Educational environment

**Working understanding**

Educational environment covers the whole school system for children and young people from pre-school to the primary and secondary school system. Important aspects of these environments include their physical appearance, ethos and culture and the nature of relationships with the adults (frequently teachers).

There are links between this construct and 3.4.1 Engagement with learning.

**Rationale**

Positive educational experiences contribute significantly to the mental health of children and young people and the educational environment, including its ethos, is fundamental to this. Schools are a key setting for promoting emotional and social competences as well as academic learning (Payton *et al.,* 2008 cited in Barry, 2009).

Environments in the early years also have a crucial role in nurturing cognitive ability. Whilst the home learning environment plays a larger role in determining future mental health than socio-economic or parental education (see sections 3.4.1 Engagement with learning) (Melhuish *et al.*, 2008 cited in Foresight, 2008), high-quality pre-school education has a significant impact on improving the mental health of children (Schweinhart and Weikert, 1997 and Schweinhart *et al.*, 2005 cited in Barry, 2009). Nurseries are important learning environments that can nurture the social and self-regulation skills enabling children to flourish through warm and contingent caretaking, exposure to rich language and avoidance of directiveness and punitiveness (Foresight, 2008).

Studies suggest that being in fulltime education in a school with a robust and consistent approach towards bullying and the promotion of a learning atmosphere where individual needs and interests are addressed are protective for mental health (Patel *et al.*, 2007). Core aspects of the learning environment:

- engagement in a long-term project which has intrinsic meaning
- learning to reflect on and talk about one's work
- individualised and contingent responding from the teacher
- portfolio-based assessment reflecting student development and based on a dialogue

seem more likely to foster creativity and enhance mental wellbeing. They also appear to enhance key skills of organising, managing and controlling one's behaviour leading to more independent, resilient and flexible learners (Foresight, 2008).

The effects of education extend beyond the impact on the capabilities, competencies and skills of individuals, to generating opportunities for social interaction and collaboration in collective experiences of learning and development. This involvement can have both positive and negative effects (see section 3.4.2 Peer and friend relationships). Educational settings may be a source of support or distress depending on the nature of the relationships and social networks formed in them (Feinstein *et al.*, 2008). Teachers are in an important position in relation to the mental health of children and young people (Foresight, 2008; Jané-Llopis and Braddick, 2008) and children and young people in turn identify the importance of good

relationships with teachers for their mental health and report that poor relationships, including being treated disrespectfully, are detrimental to this (Shucksmith *et al.*, 2009). In Shucksmith *et al.*'s review of what children and young people feel impacts on their mental health, although relationships at school, and to a slightly lesser extent achievement, were the major focus of young people's accounts, well maintained school environments with facilities for children to meet and talk were identified in one study (Shucksmith *et al.*, 2009). Qualitative evidence also suggests that the way transition is handled is important to mental health at all ages (from the first transition from home-based care to nursery settings to the transition from school to work) (Advisory group, personal communication). The transition from primary to secondary school is particularly important as it coincides with the onset of adolescence.

Research suggests that aspects of organisational structure and ethos of schools are associated with different outcomes in terms of academic attainment, exclusion and levels of mental health problems. A study in South London examining behavioural and academic outcomes in children at different schools suggested that, after taking account of variations in school intake, there were significant differences between schools and behavioural problems were only partially accounted for by neighbourhood and intake variables to do with the characteristics of the children at school entry (Rutter *et al.*, 1979). Differences also seemed to persist over time, with any one school having a relatively stable record in producing high or low rates of children with problems. The characteristics of more effective schools were attributed to good leadership, involvement of staff in decision making, consistency and consensus among staff about the aims of the school, parental involvement, a pleasant work orientated environment for children, effective classroom management strategies and opportunities for children to be involved in and take responsibility for aspects of their lives at school. Other factors were to do with a sense of consistency within the school, low staff turnover, good communication between teachers and the use of rewards and praise. The development by schools of individualised support from teachers when children face special difficulties has been identified by children and young people as important to their mental health, with a lack of support and understanding where special needs exist as detrimental (Shucksmith *et al.*, 2009).

The above features are now commonly recognised as being those that create a health promoting school that is conducive to mental health and wellbeing (Jané-Llopis and Braddick, 2008). School environment and ethos is of prominence in current school policy and direction in Scotland as evidenced in the policy initiative Curriculum for Excellence (Scottish Executive, 2004a). The place of ethos within the curriculum is described as follows in *Curriculum for Excellence Building the Curriculum 3: A framework for learning and teaching:*

> "The curriculum is the totality of experiences which are planned for children and young people through their education, wherever they are being educated. It includes the ethos and life of the school as a community; … The starting point for learning is a positive ethos and climate of respect and trust based upon shared values across the school community, including parents, whether for young people in school or those not in school … All members of staff should contribute through open, positive, supportive relationships.…. Children and young people should be encouraged to contribute to the life and work of the school and, from the earliest stages, to exercise their responsibilities as members of a community." (Scottish Government, 2008a)

## Indicators

| Educational environment | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Treatment by teachers | • Percentage of P7, S2 and S4 pupils who strongly agree or agree that their teachers listen to how they would like to do things[1] | • Health Behaviour in School-aged Children Survey (HBSC) |
| Relationship with teachers | • Percentage of P7, S2 and S4 pupils who strongly agree or agree that their teachers care about them as a person[1] | • HBSC |
| *Relationship with all school staff [R]* | • *Assessment of pupil's perception of their relationship with all school staff* | • *No suitable data source identified* |
| Control at school | • Percentage of P7, S2 and S4 pupils who strongly agree or agree that their teachers provide them with choice and options[1] | • HBSC |
| School ethos | • Percentage of P7, S2 and S4 pupils who strongly agree or agree that the students in their class(es) treat each other with respect[1] | • HBSC |
| | • *Percentage of pupils who feel that their school acknowledges a range of indicators of success at school, not just academic [R]* | • *No suitable data source identified* |
| | • Percentage of parents with school-aged children who strongly or tend to agree that the school keeps them well informed about their child's progress | • Scottish Household Survey |
| | • *Assessment of the overall school ethos covering such things as relationships, the environment of learning, personal and professional satisfaction, leadership, opportunities for children to take responsibility, involvement of staff in decision-making and the 'feel' of the school [R]* | • *No suitable data source identified* |

[1] P7, S2 and S4 pupils are circa 11, 13 and 15 year olds, respectively.
[R] Indicates that there is a recommendation attached to the indicator.

## Recommendations

### Relationships with all school staff

There is a need to collect data on the quality of relationships with all school staff. Suitable question(s) should be identified or developed and included in a routine national survey.

Within the school environment it is not just relationships and treatment by teachers that are important for children's mental health. Relationships with all school staff are equally important. Data therefore need to be collected in a routine national survey on a wider range of relationships in the school setting. Suitable question(s) should be identified or developed in the first instance.

### Wider successes at school

There is a need to collect data on whether children feel that their school acknowledges their wider successes.  A means of assessment should to be identified or developed and included in a routine national data collection system.

Success is historically assessed in an academic manner but it is much wider than this as the new Curriculum for Excellence seeks to convey.  A means of assessing wider successes at school needs to be identified or developed and then included in a routine national data collection system.

### Overall school ethos

There is a need to collect data on the overall school ethos nationally in Scotland.  A means of assessment should to be identified or developed and included in a routine national data collection system

Current policy such as the Curriculum for Excellence recognises the importance of the school ethos for many aspects of children and young people's lives including their mental health.  Data on the school overall ethos covering such things as relationships, the environment for learning, personal and professional satisfaction, leadership, opportunities for children to take responsibility, involvement of staff in decision-making, and the 'feel' of the school should be collected routinely nationally.  A suitable scale or set of questions, which could be combined to provide a single assessment, should be identified or developed.  A set of twelve school ethos indicators have been developed for Scotland (MacBeath *et al.*, 1992a, 1992b).  Whilst not developed with factors which impact on mental health explicitly in mind they offer a good resource to inform data collection.

### Other key national Scottish indicators

| Educational environment | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| **Treatment by teachers** | |
| GIRFEC | • SHANARRI indicators - Respected |
| **Relationship with teachers** | |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Mental and emotional wellbeing |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Relationships, sexual health and parenthood |
| ***Relationship with all school staff*** | |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Mental and emotional wellbeing |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Relationships, sexual health and parenthood |
| GIRFEC | • SHANARRI indicators - Respected |
| **Control at school** | |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Planning for choices and changes |

| School ethos - acknowledgement of a range of indicators of success at school | |
|---|---|
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Health and wellbeing: experiences and outcomes, Planning for choices and changes |
| **School ethos – parents being kept informed** | |
| GIRFEC | • SHANARRI indicators – Respected |
| *School ethos - overall* | |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Social wellbeing |
| GIRFEC | • SHANARRI indicators – Achieving, Respected, Responsible |

### 3.4.4  Pressures and expectations

**Working understanding**

This construct relates to the pressures and expectations to succeed and achieve, especially in exams, and time pressures, including the need to fit everything into an increasingly busy schedule and having a too heavy workload, including homework.  It also recognises wider pressures and expectations to succeed in life, pressures to fit in at school and with peers and the fear of being late for school or for class.

**Rationale**

A recurring theme in children and young people's accounts of what they consider to be important for their own mental health is the pressures created by the demands of school work (Harden *et al.*, 2001; Shucksmith *et al.*, 2009).  Children and young people relate the stress, as a result of the pressures of school work, to the pressure to succeed and achieve, especially in exams, with academic pressures generating feelings of being anxious and nervous.  There is, however, a distinction between ordinary feelings of pressure in life which can be considered useful, leading for example to creativity and productivity, and feeling excessive pressure.  In relation to school work, the latter is the perception of having too much to cope with and the feelings this evokes.

Pressure can come from perceptions of expectations of oneself and by others and it can be the assumptions about the consequences of not meeting expectations that are associated with becoming anxious, worried or stressed.  Children and young people note frequently that a sense of personal achievement is critical for their mental health and that the feeling of not achieving impacts negatively (Harden *et al.*, 2001; Shucksmith *et al.*, 2009).  For many this relates to school success, but, especially for boys, success is often achieved through sport.  For some young people, the power of achievement in making them feel good and contributing to mental wellbeing comes from the recognition and regard it brings from others, particularly parents.  The need to feel 'normal' is also a thread that runs through many children and young people's accounts, a factor which increases with the age of the young person as the peer group becomes more and more important to them.

A further dimension of pressures is that of time pressures and needing to fit a heavy workload of school work plus school-related activities into a schedule, leaving little opportunity for free time (Harden *et al.*, 2001; Shucksmith *et al.*, 2009).  Young people report concerns about falling behind with class work and not keeping pace with classmates, leading to their feeling overwhelmed, inferior and stressed.  Older adolescents appear to experience more pressure from school work than those who are younger (WHO, 2004c cited in McCollam *et al.*, 2008).  The fear of being late for school or for class (or worry that you might be) has also been identified by some children as stressful (Shucksmith *et al.*, 2009).

Other researchers have noted that 'overscheduling' is leading to some children displaying increasing signs of anxiety and stress (Ginsberg, 2007 cited in Lester and Russell, 2007).  Some claim that issues around time pressures (pressure to fit it all in) are becoming more evident for young people.  Indeed, a US study of changes in stressors over the past 30 years notes that the identification of time pressure is a new phenomenon (Ryan-Wenger *et al.,* 2005 cited in Shucksmith *et al.*, 2009).  It notes that previous studies conducted in the 1990s and

earlier make no mention of this type of stress in children, whilst this study identified homework (too much), homework (in general) and 'too many things to do' as significant sources of stress.  The authors ascribe this to performance-related pressures on schools and to the trend for parents to organise more leisure activities for their children.

## Indicators

| Pressures and expectations | | |
| --- | --- | --- |
| **Indicator** | **Measure** | **Data source** |
| Time pressure | • Percentage of P7, S2 and S4 pupils who felt that they had enough time for themselves very often or always in the last week[1] | • Health Behaviour in School-aged Children Survey (HBSC) |
| Choice of how to spend free time | • Percentage of P7, S2 and S4 pupils who felt that they were able to do the things that they want to do in their free time very often or always in the last week[1] | • HBSC |
| Pressure of school work | • Percentage of S2 and S4 pupils who feel they very often or often have more school work than they can handle[1] | • HBSC |
| *Pressure to succeed in life* [R] | • *Assessment of whether children and young people feel pressure to succeed in life* | • *No suitable data source identified* |
| *Pressure to fit in* [R] | • *Assessment of whether children and young people feel pressure to fit in at school or with others their own age* | • *No suitable data source identified* |

[1] P7, S2 and S4 pupils are circa 11, 13 and 15 year olds, respectively.
[R] Indicates that there is a recommendation attached to the indicator.

## Recommendation
### Pressure to succeed or pressure to fit in
There is a need to collect data on the pressure children and young people feel to succeed in life and to fit in at school or with others their age.  Suitable question(s) should be identified or developed and included in a routine national survey.

There are no existing suitable sources of data on this indicator and opportunities should be sought to identify a suitable data collection instrument and means of data collection.  Items to collect the data could be along the lines of the following suggestion by the Children and Young People's Mental health Indicators Advisory Group:

- *Do you feel under pressure to succeed in life?*
- *Do you feel under pressure to fit in at school or with others your age?*

  *With answers: no pressure; a little pressure; a lot of pressure; overwhelming pressure*

## 3.5  Contextual Constructs – Community

All the constructs in this section, with the exception of 'safety', relate to aspects of social capital.  Participation, social networks, social support and trust are central to the concept of social capital – the networks and norms of connection and reciprocity – which is understood to influence mental health either directly, or as a potential mediator of risk factors e.g. deprivation.  It should be noted that the literature covering children and community appears to be relatively sparse.  A systematic review on social capital and mental illness concluded that while there is strong support for an association at the individual level for adults, there is less evidence in relation to childhood and ecological studies (De Silva *et al.*, 2005).  Indeed, most studies have examined social capital relationships among adults (Whiting and Harper, 2003; Goodwin and Armstrong-Esther, 2004; Leonard, 2005).  Those investigating the relationship among children have concentrated on structural dimensions of the neighbourhood (indices of deprivation, immigrant concentration, residential stability) and other neighbourhood-level socio-economic variables and/or measures of social control or social cohesion (see references cited in Meltzer, 2008).  There is, however, a growing body of evidence which is trying to determine what social capital might look like for children and young people, especially as in terms of measurement, problems arise because some of what is assessed is not appropriate to the lives of young people.

Children more readily define 'community' in terms of community of interest, for example, around school and home rather than geographical locations (Whiting and Harper, 2003; Goodwin and Armstrong-Esther, 2004).  Thus for them, the aspects of social capital covered in this domain clearly overlap with several of the constructs in both the Family and Learning environment domains (see sections 3.3 and 3.4, respectively).

It is important to note also that in most studies, the associations listed below are attenuated after adjustment for material deprivation.

### 3.5.1  Participation

#### Working understanding
Participation covers social participation (e.g. involvement in clubs or organised groups), and community or civic participation, which covers involvement in local and national affairs, and perceptions of ability to influence them (Harper, 2001; Harper and Kelly, 2003).  It also encompasses whether children feel their rights are respected.

#### Rationale
Opportunities for participation and influence generally appear to have an impact on mental health, although a review indicated that the evidence-base is mixed for children and young people (De Silva *et al.*, 2005).  The positive effect of participation may be through a combination of enhancing social contact and increasing self-efficacy and agency.  Levels of mental health also influence people's capacity to participate.

Children and young people place a high value on having some sense of control or choice, which may arise from opportunities to participate (Shucksmith *et al.*, 2009).  Involvement in activities where children foster democratic participation by planning and managing their

environments with little adult involvement is linked to increased social development including self-esteem, efficacy and decision-making (Chawla and Heft, 2002 cited in Schaefer-McDaniel, 2004). Children identify the importance of being listened to and the impact this has on their mental health (Harden *et al.*, 2001).

The 2004 survey of mental health of children in Great Britain (Green *et al.*, 2005) found that those children aged 11 to 16 years with a mental health problem were less likely to take part in group, club or organisations in the last year or school-based groups, although there were variations in which type of groups children with different mental health problems were more likely to engage with. In the three-year follow-up, those who participated less in clubs and groups at school were more likely to have persistent conduct disorder whilst those who did not have an emotional disorder at follow-up mentioned membership of clubs and groups more so than those with onset of emotional disorder (Parry-Langdon *et al.*, 2007). Other studies suggest that involvement in community activities by young people are protective (Patel *et al.*, 2007).

Children and young people who report higher levels of overall sense of community (both the neighbourhood and school) report lower perceptions of global loneliness and better psychological health (Lester and Russell, 2007). Higher levels of neighbourhood activity, friendships and safety are associated with lower levels of neighbourhood loneliness: opportunities for involvement may provide exposure to others.

## Indicators

| Participation | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| *Sense of agency* [R] | • *Assessment of whether children and young people believe that they can make, or believe that they already do make, a positive difference in the world around them* | • *No suitable data source identified* |
| *Respect of children's rights* [R] | • *Assessment of whether children and young people feel their rights are respected by others* | • *No suitable data source identified* |
| Influencing local decisions | • Percentage of households containing children and young people aged 8 to 17 years, where at least one 8 to 17 year old regularly takes part in representing young people's views or involvement in youth politics (e.g. Youth Forum or Dialogue Youth)[1] | • Scottish Household Survey |
| Participation in clubs, groups or organisations | • Percentage of households containing children and young people aged 8 to 17 years, where at least one 8 to 17 year old regularly takes part in clubs, groups or organisations[1] | • Scottish Household Survey |

[1] Data collected by parental/guardian assessment.
[R] Indicates that there is a recommendation attached to the indicator.

## Recommendations

### Sense of agency
There is a need to collect data to allow an assessment of whether children believe that they

can make, or believe that they already do make, a positive difference in the world around. Suitable question(s) should be identified or developed and included in a routine national survey.

Collection of data on children and young people's sense of agency is consistent with the recent Programme for Government, launched 7th September 2011, which contains a new Rights of Children & Young People Bill for consultation which will enshrine in law the requirement for the Scottish Government to have due regard to the UN Convention of the Rights of the Child when exercising its responsibilities. The bill will ensure that all of the Scottish Government's policies and legislation take account of and promote the rights of children and young people, and aims to set an example for the wider public sector. Suitable question(s) should be identified or developed and included in a routine national survey.

### Respect of children's rights

There is a need to collect data to allow an assessment of whether children feel their rights are respected by others. Suitable question(s) should be identified or developed and included in a routine national survey.

Collection of data on whether children and young people feel their rights are respected is consistent with the recent Programme for Government, launched 7th September 2011, which contains a new Rights of Children & Young People Bill for consultation which will enshrine in law the requirement for the Scottish Government to have due regard to the UN Convention of the Rights of the Child when exercising its responsibilities. The bill will ensure that all of the Scottish Government's policies and legislation take account of and promote the rights of children and young people, and aims to set an example for the wider public sector. Suitable question(s) should be identified or developed and included in a routine national survey.

### Other key national Scottish indicators

| Participation | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| *Sense of agency* | |
| Adult Mental Health Indicator Set | • Involvement in local community - Percentage of adults who feel involved in their local community a great deal or a fair amount, Scottish Health Survey |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Social wellbeing |
| GIRFEC | • SHANARRI indicators - Respected |
| *Respect of children's rights* | |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Social wellbeing |
| GIRFEC | • SHANARRI indicators - Respected |
| **Influencing local decisions** | |
| Adult Mental Health Indicator Set | • Influencing local decisions - Percentage of adults who strongly agree or agree that they can influence decisions affecting their local area, Scottish Health Survey |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Social wellbeing |

| Curriculum for Excellence | • Social studies: experiences and outcomes, People in society, economy and business |
|---|---|
| GIRFEC | • SHANARRI indicators – Respected, Responsible |
| Single Outcome Agreement Local Outcome Indicator (October 2011) | • Percentage of adults agreeing that they can influence decisions affecting their local area, Scottish Household Survey |
| **Participation in clubs, groups or organisations** | |
| GIRFEC | • SHANARRI indicators - Active |

### 3.5.2 Social networks

#### Working understanding

Social networks refer to the accumulated range of formal and informal social relationships that surround children and young people, and include web-based social networks e.g. Facebook, MySpace and Bebo. This set of people, with whom children and young people maintain contact, is accumulated through interactions with others in families, schools, neighbourhoods, local associations and a range of informal and formal meeting places, including the internet and other modern technology media.[37]

The construct overlaps with Family relations, Peer and friend relationships, Educational environment and Social support (see sections 3.3.1, 3.4.2, 3.4.3 and 3.5.3, respectively).

#### Rationale

A number of recent studies have sought to extend the potential of social capital theory by studying the nature of children and young people's social networks. For instance, Holland *et al.* (2007) reviewing three projects looking at transition stages (including that from primary to secondary school and from youth into adulthood) identify that children and young people (ages 11 to 30 years) draw on their social networks as positive resources to cope with the transition. For those moving from primary to secondary school, this can be both through support in the transition and in creating a solid base from which to link to new networks, although it is identified that some social networks can also be constraining. Siblings are also important in this respect.

A lack of social connections and networks is associated with poor mental health. As noted in the rationale for the Peer and friend relationships construct (see section 3.4.2), in a three-year follow-up survey, children and young people who had fewer friends at the outset were more likely to have a persistent conduct disorder at follow-up and compared with children and young people without an emotional or conduct disorder at follow-up, those with fewer friendships at the outset were more likely to have developed emotional or conduct disorder at follow-up (Parry-Langdon *et al.*, 2007).

It is important to recognise that the number or frequency of social connections is not a marker of the quality of the social connections within that network. Negative pressure from, or interaction with, social networks may have negative effects on health, and engagements in some social networks can, for example, increase the likelihood of engaging in anti-social behaviour with potential negative consequences for mental health. Overall, however, the effects of social networks on mental health are generally positive. Social networks can provide social support, social influence and opportunities for social engagement and thus create meaningful roles, resources and opportunities for intimate one-on-one contact. It is also unclear whether having one confiding relationship for social support is more important than a large number of unsupportive relationships from a social network. However, one view is that the larger and more diverse an individual's social network, the more likely it is that

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[37] Although it is recognised that social networks and social support overlap, social networks (e.g. contacts, number of contacts, frequency, network density) are distinguished here from social support i.e. the functional aspects of support (e.g. type of support – emotional, practical and quality – negative or positive).

there will be functional/supportive relationships within it and the more potential health benefits are likely (Friedli *et al.*, 2007).

With advances in telecommunication technology the nature and significance of social networks are rapidly changing especially for children and young people, which present new opportunities to construct a wide circle of relationships and networks that can additionally be accessed 24 hours a day (Livingstone and Brake, 2009). As with more traditional networks, there is a negative side to these online networks, with risks of privacy invasion, on-line bullying (see section 3.4.2 Peer and friend relationships) and exploitative or dangerous contacts. This is an emerging area where further work is needed to fully understand how networks currently work for children and young people and their impact on mental health.

## Indicators

| Social networks | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Contact with peers [R] | • Assessment of children and young people's peer group contacts | • No suitable data source identified |

[R] Indicates that there is a recommendation attached to the indicator.

## Recommendation
### Contact with peers

Further developmental work should be undertaken to understand children and young people's social networks, specifically contact with peers. This will assist in developing suitable question(s) for inclusion in routine national surveys.

Social networks are an important part of children and young people's lives and one that needs to be assessed. However, the nature of networks and peer group contacts are rapidly changing for children and young people as telecommunication technology advances. This is an emerging area where further work is needed to fully understand how networks currently work for children and young people in order to be able to say what this indicator should be and what needs to be assessed and how.

## Other key national Scottish indicators

| Social networks | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| Adult Mental Health Indicator Set | • Social contact - Percentage of adults who have contact (in person, by phone, letter, email or through the internet) at least once a week with family, friends or neighbours who do not live with them, Scottish Health Survey |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Relationships, sexual health and parenthood |

### 3.5.3 Social support

#### Working understanding

Social support is a feature of, and is derived from, a person's social network including family, peer and friend relationships and neighbours. It relates to both received and perceived social support, although perceived social support is of greater importance. Three types of attributes of social support have been identified: emotional, instrumental, and informational and appraisal (Cooper *et al.*, 1999; Langford, 1997 cited in Korkeila, 2000). It has been described as:

> 'an interactive process in which emotional, instrumental or financial aid is received from one's social network' and 'information leading the individual to believe that he/she is cared for and loved, esteemed, and a member of a network of mutual obligations.' (Bowling, 2005).

Thus, social support relates to supportive relationships and to the quality of inter-personal relationships and only exists if it benefits the recipient.

This construct overlaps with Family relations, Peer and friend relationships, Educational environment, Social networks and Trust (see sections 3.3.1, 3.4.2, 3.4.3, 3.5.2, and 3.5.4, respectively).

#### Rationale

Supportive social relationships protect and enhance mental health and have an important role in maintaining resilience in the face of adversity. Social support, especially perceived social support, correlates strongly with measures of mental health (Korkeila, 2000; Stewart-Brown, 2005). A 2004 mental health survey of children and young people in Great Britain showed that the well established relationship for adults between availability of social support and mental health[38] also exists for young people (aged 11 to 16) (Green *et al.*, 2005). Children with a mental health problem were more likely to score in the bottom quartile on a scale measuring the extent of network of family and friends to whom they felt close and by whom they felt supported. The three-year follow-up showed that those scoring in the lowest quartile of this scale at the outset were more likely than the recovered group to have persistent conduct disorder at follow-up (Parry-Langdon *et al.*, 2007).

In an Australian study, young people who reported having poor social connectedness (defined as not having someone to talk to, to trust, to depend on and who knows you well) were two to three times more likely to experience depressive symptoms than peers who reported the availability of confiding relationships (Glover *et al.*, 1998 cited in World Health Organization *et al.*, 2004).

It has been suggested that a good close confiding relationship for children and young people may partially mitigate the effect of family discord and conflict whilst a lack of such a relationship may increase the adverse effects of severely negative life events (Sandberg and Rutter, 2008). However, the extent to which positive social relationships can offset the effects

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[38] Adults who have extensive social networks or people in whom they can confide are less likely to experience common mental health problems than those with less than 3 close friends or relatives or little or no social support (Brugha *et al.* 1993; Meltzer *et al.*, 1995).

of material deprivation is unclear (Barry, 2009).

In general, perceived rather than actual social support appears to be the key factor in influencing mental health (Cooper *et al.*, 1999; Friedli *et al.*, 2007), although overall ratings for perceived social support largely agree with ratings by members of a person's social network (Antonucci and Israel, 1986 cited in Korkeila, 2000).  It is proposed that perceived availability of social support can buffer the effects of stress on psychological distress, depression and anxiety (Cohen, 2004).  Whilst coming from studies with adults it is plausible that this is the case for children as well.

Children and young people highlight the importance of support received from family and friends for their mental health, valuing, for example, support in sharing problems, reaching decisions and help through life transitions (Harden *et al.*, 2001; Shucksmith *et al.*, 2009).  The unconditional nature of this support is perceived as especially important to those with particular problems, for example, mental or physical health problems.  Children also note the importance of support from other adults, often in the form of support from professionals, and specifically that being able to talk to an adult (not always a parent) is supportive and helpful in maintaining wellbeing.  Trust and confidentiality are regarded as important attributes of helpful support.

Whilst children view adequate social support from friends and family as essential for mental wellbeing, including specifically life satisfaction, research suggests that the balance of their need for support from parents and friends can shift as they grow towards adulthood (see references cited in Proctor *et al.*, 2009; Shucksmith *et al.*, 2009).  Intrinsic support (consisting of variables such as encouragement, appreciation, being pleased with the child, trust and love) has also been found to be the most predictive factor of adolescent life satisfaction (Proctor *et al.*, 2009).  The emotional support provided by siblings is beneficial to children undergoing the transition from primary to secondary school (Holland *et al.*, 2007).

Although the level of received social support has connections to personality features, coping styles and socio-economic factors, the association of a lack of social support with an increased risk for mental health problems make it a useful indicator for a mental health monitoring (Korkeila, 2000).

### Indicators

| Social support | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Social support | • Percentage of S2 and S4 pupils who agree a lot or a bit that they can ask for help or a favour from neighbours in the area where they live[1] | • Health Behaviour in School-aged Children Survey (HBSC) |

[1] S2 and S4 pupils are circa 13 and 15 year olds, respectively.

## Other key national Scottish indicators

| Social support | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| Adult Mental Health Indicator Set | • Percentage of adults with a primary support group of three or more to rely on for comfort and support in a personal crisis, Scottish Health Survey |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Mental and emotional wellbeing |
| Curriculum for Excellence | • Health and wellbeing: experiences and outcomes, Relationships, sexual health and parenthood |
| GIRFEC | • SHANARRI indicators - Achieving |

## 3.5.4  Trust

### Working understanding
Trust is widely used as an indicator of social capital, as an outcome of social capital or both (Harper, 2001; Harper and Kelly, 2003).  The construct of trust here covers levels of trust in others generally, including strangers, as well as trust in adults outside the family and trust locally in neighbours.  Trust in this sense may overlap with the presence or absence of confidentiality, feeling valued and being listened to.

Trust is obviously an important feature of relationships with family, peers and friends which are covered in the constructs Family relations and Peer and friend relationships (see sections 3.3.1 and 3.4.2, respectively).  This construct also links to section 3.5.3 Social support.

### Rationale
High levels of community trust have been associated with reduced psychological distress, although the research evidence is mixed and under-developed especially for children and young people (Department of Health, 2001; World Health Organization, 2004).  As with social support and participation, low levels of mental health may also influence capacity to trust.

Children and young people identify trust in adults outside the family, mainly professionals, as important for their mental wellbeing, although this is not a major factor identified by them as impacting on their mental health (Shucksmith *et al.*, 2009).  They see access to a trustworthy adult outside the family to talk to as supportive and helping to maintain mental wellbeing but importantly the trusting relationship needs to be one of respect, non-judgemental and including the knowledge that confidences will be kept.

In a 2004 survey of the mental health of children and young people in Great Britain, those aged 11 to 16 identified as having an emotional or conduct, but not a hyperkinetic disorder, were found to be more likely than others to feel that few or none of their neighbours could be trusted, which was not due to the type of area they lived in (Green *et al.*, 2005).  In the three-year follow-up study, those who said that people in their neighbourhood were less trustworthy were more likely to develop an emotional or conduct disorder by follow-up compared with those who did not develop a disorder (Parry-Langdon *et al.*, 2007).

While children living in more deprived neighbourhoods have been found to run a higher risk of coming into contact with mental health care services, strong trust and social cohesion between citizens in the neighbourhood has been found to mitigate the risk-increasing effect of socio-economic deprivation on children's mental health service use (Van de Linden, 2003 cited in Meltzer, 2008).

Looking at the association between measures of social capital at neighbourhood level and the health, including the mental health of adolescents, Drukker *et al.* (2006) note that findings for informal social control, one aspect of social capital, suggest that it is specifically associated with adolescents' mental health and behaviour at age 11 years.  This effect was largely independent of general health.  They suggest that increased social control may help adolescents understand both the norms and values with which they are expected to comply and the consequences of non-compliance, which may impact directly on behaviour and mental

health. However, these associations were not found for the same cohort of adolescents two or three years later. The same authors also note that strong social cohesion and trust mitigated the risk-increasing effects of socio-economic deprivation in children, protected against more serious mental health problems in all children and against lower levels of self esteem in adolescents of higher educated parents.

## Indicators

| Trust | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Neighbourhood trust | • Percentage of S2 and S4 pupils who agree a lot or a bit that you can trust people in the area where they live[1]<br><br>• Percentage of S2 and S4 pupils who disagree a lot or a bit that most people in the area where they live would try to take advantage of them if they got the chance[1] | • Health Behaviour in School-aged Children Survey (HBSC)<br>• HBSC |
| Community cohesion | • Percentage of S2 and S4 pupils who agree a lot or a bit that people say 'hello' and stop to talk to each other in the street in the area where they live[1] | • HBSC |
| *Informal social control [R]* | • *Assessment of the extent to which adults are willing to intervene in hypothetical neighbourhood situations, for example, where a child/children are perceived to be misbehaving* | • *No suitable data source identified* |

[1] S2 and S4 pupils are circa 13 and 15 year olds, respectively.

[R] Indicates that there is a recommendation attached to the indicator.

## Recommendation

### Informal social control

There is a need to collect data to allow a national assessment of informal social control. Suitable question(s) should be identified or developed and included in a routine national survey.

A potential scale for assessing informal social control is for example the Informal Social Control Scale (Sampson *et al.,* 1997), which measures the willingness to intervene in hypothetical neighbourhood-threatening situations, such as where a child/children are perceived to be misbehaving. The suitability of scales for inclusion in a national survey needs to be determined and a shortened version or question(s) developed specifically if required.

## Other key national Scottish indicators

| Trust | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| Adult Mental Health Indicator Set | • Percentage of adults who trust most people in their neighbourhood, Scottish Health Survey |

### 3.5.5 Safety

**Working understanding**

Safety covers a child or young person's sense of security that they will not be attacked, abused verbally or physically or have items stolen, as well as their perception of and worry about crime. Feelings of safety are context, time and location specific and are strongly influenced by such things as age, gender, ethnicity, disability, sexual orientation and religious affiliation. Safety is also important in enabling children and young people to enjoy opportunities for outdoor play and engaging with the physical environment (see sections 3.2.1 Learning and Development and 3.6.4 Physical environment). Assumptions about the acceptable threshold of risk-taking that can be tolerated are implicit in the construct of safety. This is important as a significant aspect of child development is for the child to have opportunity to test their own capabilities and exploring the social, physical and natural environment.

There are also overlaps with experience of being bullied at school, and feelings of safety and security in the family (see sections 3.4.2 Peer and friend relationships and 3.6.5 Violence, respectively).

**Rationale**

Both crime rates and fear of crime have a significant impact on health and mental health, including an individual's sense of physical and emotional vulnerability (Norris and Kaniasty, 1994 and Keithley and Robinson, 1999 cited in Chu *et al.*, 2004). Fear of crime may impact on mental health as much as crime itself, causing stress, anxiety and depression, and can greatly affect the quality of people's lives by causing social exclusion as well as mental distress (Skogan and Maxfield, 1981 and Baumer,1985 cited in Chu *et al.*, 2004; Kintrea *et al.*, 2008). This effect is not necessarily the result of previous victimisation. Perceptions of levels, and experience, of community violence are likely to be important influences on whether young people feel safe within their community (see section 3.6.5 Violence). For instance, an exploratory study examining the impacts of territorial behaviour, including gang culture, among young people in disadvantaged areas of British cities showed that some were fearful of attack outside their own areas, especially in the evening and at weekends, which restricted mobility and could contribute to social exclusion (Kintrea *et al.*, 2008).

Negative relationships have been shown between being threatened or injured by someone with a weapon, having property stolen or damaged and life satisfaction in adolescents (Valois *et al.*, 2001 cited in Proctor *et al.*, 2009).

In a survey of children and young people in Great Britain in 2004, those aged 11 to 16 years identified with an emotional disorder were more likely to feel unsafe walking alone in the daytime (Green *et al.*, 2005), although it is possible that their mental health problem affected their attitude as the variation existed after area lived in was included in the analysis. No such differences were identified between those with or without a conduct disorder. The three-year follow-up found that those who did not feel safe in their neighbourhood were more likely to develop emotional disorder by follow-up compared with the non-disorder group (Parry-Langdon *et al.*, 2007).

### Indicators

| Safety | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Neighbourhood safety | • Percentage of 16 and 17 year olds who feel very or fairly safe walking alone in their neighbourhood after dark<br>• Percentage of S2 and S4 pupils who, generally speaking, always feel safe in the area they live[1]<br><br>• Percentage of S2 and S4 pupils who agree a lot or a bit that it is safe for younger children to play outside during the day in the area where they live[1] | • Scottish Household Survey<br><br>• Health Behaviour in School-aged Children Survey (HBSC)<br>• HBSC |

[1] S2 and S4 pupils are circa 13 and 15 year olds, respectively.

### Other key national Scottish indicators

| Safety | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| Adult Mental Health Indicator Set | • Percentage of adults who feel very or fairly safe walking alone in their neighbourhood after dark, Scottish Health Survey |
| GIRFEC | • SHANARRI indicators - Safe |
| National Performance Framework | • Improve people's (aged 16 and above) perceptions about the crime rate in their area - Percent of respondents who believe that crime has stayed the same or reduced in the past 2 years in their local area, Scottish Crime and Justice Survey |
| Single Outcome Agreement Local Outcome Indicator (October 2011) | • Percentage of adult residents stating they feel 'very safe' or 'fairly safe' when at home alone at night AND 'very safe' or 'fairly safe' when walking alone in the local neighbourhood after dark, Scottish Household Survey |

## 3.6  Contextual Constructs - Structural

The inclusion of structural constructs recognises the need to take account of wider fiscal, economic and legislative factors that impact on the mental health of people in Scotland.

### 3.6.1  Equality

#### Working understanding

There are multiple dimensions to equality, which is reported in the form of inequalities of a health outcome or determinant.  An overall assessment of inequality has been confined to poverty and income inequality, i.e. differences in per capita income or household income across populations, which are indicators and determinants of the scale of socio-economic stratification in society and assess how equal a society is.

For wider coverage of equality, this construct also includes an indicator denoting analysis of all the other indicators in the children and young people's mental health indicator set by other important dimensions of equality (the protected characteristics under the Equality Act (2010),[39] deprivation, rurality, children with additional support needs and children looked after) to determine how the contextual factors and mental health itself vary between population groups and examine potential inequalities.  Whilst there are several dimensions to equality by which all the indicators could be analysed, the indicators work has taken a pragmatic approach informed by data availability, which means that analysis will be restricted to selected variables.

This construct clearly overlaps with the construct Social Inclusion (section 3.6.2) and there are links to Discrimination (section 3.6.3).

#### Rationale

The overwhelming majority of research and data are concerned with the impact of inequality on health, rather than the specific impact of equality, although a significant theme in the work of Wilkinson and others is that societies with high levels of equality have better health and social outcomes (Wilkinson and Pickett, 2006; Dorling *et al.*, 2007).

Inequality is a cause of mental health problems for populations and for some individuals a social slide can occur as a result of a mental health problem (Rogers and Pilgrim, 2003; Melzer *et al.*, 2004; Social Exclusion Unit, 2004; Wilkinson, 2005).  Mental health problems are not distributed randomly in the population but are more common in socially disadvantaged populations, in areas of deprivation, and are associated with unemployment, less education, low income or material standard of living (Rogers and Pilgrim, 2003; Melzer *et al.*, 2004).  For instance, a survey of children aged 5 to 16 years in Great Britain in 2004 found that higher prevalence of a mental health problem in children was associated with:

- parents having no educational qualifications
- economic disadvantage (household income)
- families with neither parent working
- households in which someone received disability benefit

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[39]  The protected characteristics under the act are: age, sex, disability, race, sexual orientation, religion or belief, gender reassignment, marriage and civil partnership, pregnancy and maternity.

- families where the household reference person was in a routine occupational group
- living in social or privately rented sector
- living in areas classed as 'hard pressed'[40] (Green *et al*., 2005).

Levels of mental health also differ with a range of demographic factors such as age, gender, and ethnicity (Myers *et al*., 2005; Dolan *et al*., 2006; Tennant *et al*., 2007).  Characteristics that appear to be associated with the persistence of conduct disorder in children include age, gender and socio-economic class and for the onset of emotional and conduct disorders age and sex (Parry-Langdon *et al*., 2007).  For children the effect of inequality on their parents is all important as this can in turn give rise to factors which are risk factors for children's mental health (see section 3.3 Contextual Constructs - Family).

Mental wellbeing is similarly associated with demographic factors and equality.  For instance, analysis of data from the Health Behaviour in School-aged Children Survey has shown that children's life satisfaction rises with family affluence and this rise is particularly great amongst S2 girls and S4 boys (circa 13 and 15 years) (Levin *et al.,* 2007).

Although the relative importance of material deprivation and psychosocial factors is contested, there is robust evidence that psychological and emotional pathways are an important route through which material deprivation impacts on health, identity, social relationships and life chances.  In the developed world, it has been argued by many that levels of income inequality (the gap between rich and poor), as a measure of relative deprivation, are a more significant determinant of population health than absolute income (Kawachi *et al*., 1997; Wilkinson, 2005).  Many health and social problems associated with relative deprivation - including mental health problems, low trust and violence - are more prevalent in unequal societies and income inequality has been suggested to be central to the creation of the problems of relative deprivation (Wilkinson and Pickett, 2006; Wilkinson and Pickett, 2007).  A recent report by UNICEF highlighted that across a range of indicators, many important for children's mental health, scores were worse in the most unequal countries, including the UK (UNICEF, 2007).

Those sceptical about the importance of inequality contend that income, rather than inequality, is related to health because it is a determinant of material living standards (absolute deprivation) which are claimed to have a major effect on health (see discussion and papers such as Lynch *et al*. 2004a cited in Wilkinson and Pickett, 2006).  Indeed, at the individual rather than societal level, those with more income are healthier.  It is also suggested that the most unequal societies appear to be the most materialistic and have the most individualistic values, both known to be associated with lower psychological wellbeing (Kasser, 2002 cited in Foresight, 2008).  Some studies suggest a causal influence of poverty on children's behaviour, finding that when children move out of poverty a reduction in conduct, but not emotional, problems is observed (see references cited in Jenkins, 2008).

Parenting appears to have a mediating role in the relationship between poverty and child mental wellbeing.  It has been shown that psychological stress associated with poverty increases parents' use of harsh and unsupportive parenting and inter-parental conflict and

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[40] Classifications from A Classification of Residential Neighbourhoods (ACORN) which combines geographical and demographic characteristics to distinguish types of people in different areas.

that differential parenting (different parental behaviour to siblings in the family) is greatest in families experiencing socio-economic deprivation (Jenkins, 2008), which can lead to adverse mental health outcomes in children and young people (see section 3.3.1 Family relations) (Sandberg and Rutter, 2008; Jenkins, 2008).

### Indicators

| Equality | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Absolute poverty | • Percentage of children and young people aged 15 years and under, or aged 16 to 19 years (but not married nor in a Civil Partnership nor living with a partner and living with their parents and in full-time non-advanced education or in unwaged government training), living in absolute poverty (before housing costs) (Absolute poverty is defined as living in households whose equivalised income is below 60% of the (inflation adjusted) Great Britain median income in 1998/99) | • Scottish Government Income and Poverty Statistics |
| Income inequality | • GINI coefficient for households with children aged 17 years and under[1] | • Department for Work and Pensions Households Below Average Income dataset from the Family Resources Survey |
| Relative poverty | • Percentage of children and young people aged 15 years and under, or aged 16 to 19 years (but not married nor in a Civil Partnership nor living with a partner and living with their parents and in full-time non-advanced education or in unwaged government training), living in relative poverty (before housing costs) (Relative poverty is defined as living in households whose equivalised income is below 60% of UK median income in the same year) | • Scottish Government Income and Poverty Statistics |
| Persistent poverty | • Percentage of children and young people aged 15 years and under, or aged 16 to18 years (but in school or non-advanced further education, not married and living with their parents) living in persistent poverty (before housing costs) (Persistent poverty is defined as living in households which have spent three or more years out of any four-year period in relative poverty) | • Scottish Government Income and Poverty Statistics |
| Equality analysis | • Analysis of all of the other indicators by protected characteristics under the Equality Act (2010),[2] deprivation, rurality, children with additional support needs and children looked after, where data allow | • Scottish surveys, plus administrative datasets for the Scottish Index of |

| | | Multiple Deprivation, Scottish Government Children and Young People and School Education Statistics |
|---|---|---|

[1] GINI coefficient is an inequality index which measures income inequality between the richest decile of a population and the poorest decile.

[2] The protected characteristics under the act are: age, sex, disability, race, sexual orientation, religion or belief, gender reassignment, marriage and civil partnership, pregnancy and maternity.

### Other key national Scottish indicators

| Equality | |
|---|---|
| **Indicator set** | **Measure Indicator and data source** |
| **All the Equality indicators** | |
| GIRFEC | • SHANARRI indicators - included |
| **Absolute poverty** | |
| Child Poverty Act 2010 - Child Poverty Measure | • Absolute low income - Number and proportion of children in households whose equivalised income before housing costs is less than 60% of the median in 1998/99 (inflation adjusted), Department for Work and Pensions Households Below Average Income dataset from the Family Resources Survey |
| Equally Well EY1 | • Reduction in child poverty |
| **Income inequality** | |
| Adult Mental Health Indicator Set | • GINI coefficient, Scottish Government Income and Poverty Statistics |
| **Relative poverty** | |
| Child Poverty Act 2010 - Child Poverty Measure | • Relative low income - Number and proportion of children in households whose equivalised income before housing costs is less than 60% of the median in the current year, Department for Work and Pensions Households Below Average Income dataset from the Family Resources Survey |
| National Performance Framework | • Reduce the proportion of individuals living in poverty - Proportion of individuals living in private households with an equivalised income of less than 60% of the UK median before housing costs, Department for Work and Pensions Households Below Average Income dataset from the Family Resources Survey |
| **Persistent poverty** | |
| Child Poverty Act 2010 - Child Poverty Measure | • Persistent poverty , being in relative poverty in at least 3 out of the last 4 consecutive years, Department for Work and Pensions, British Household Panel Survey |

### 3.6.2  Social inclusion

### Working understanding

Social inclusion is usually defined in terms of not being socially excluded i.e. the various ways in which children and young people are excluded or marginalised (economically, politically, socially, geographically and culturally) from the accepted norms within a society.  For children and young people, social inclusion also includes household circumstances that influence inclusion e.g. homelessness, worklessness and being looked after, as well as dimensions of child development e.g. education and nutrition.  Gordon *et al.* define social exclusion as:

> 'a lack or denial of access to the kinds of social relations, social customs and activities in which the great majority of people in British society engage. In current usage, social exclusion is often regarded as a 'process' rather than a 'state' and this helps in being constructively precise in deciding its relationship to poverty' (Gordon et al., 2000).

The Cabinet Office Social Exclusion Unit has noted that social exclusion is:

> 'What can happen when people or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime environments, bad health, poverty and family breakdown.' (Social Exclusion Unit, 1998)

and importantly that…

> 'The most important characteristic of social exclusion is that these problems are linked and mutually reinforcing, and can combine to create a complex and fast-moving vicious cycle.' (Social Exclusion Unit, 2001).

For children and young people, social inclusion might include:

- opportunities to participate in educational, training, cultural, social and leisure activities available to friends and peers e.g. school trips, holidays, birthday parties, free time to play and socialise
- being accepted and valued 'like everybody else' i.e. not being stigmatised or marked out as different in a negative way.

This construct clearly overlaps with section 3.6.1 Equality and 3.6.3 Discrimination.

### Rationale

Social inclusion is generally studied from the perspective of social exclusion, which refers to the marginalisation of certain groups from the normal activities of society, because of social or economic factors.  Key areas of exclusion include education and training, leisure, recreation, social opportunities and patterns of consumption.

In general, social exclusion on any grounds is a cause of mental health problems for the populations and for some individuals a social slide with associated social exclusion can occur as a result of a mental health problem (Rogers and Pilgrim, 2003; Social Exclusion Unit, 2004).  Research in the field of stress biology suggests that the feelings associated with exclusion, for example, the chronic stress of racism, injustice, fear of crime, lack of control

and perceived powerlessness, impact on the immune system, the endocrine system and the cardiovascular system (Wilkinson, 2005).

Social disadvantage is strongly associated with mental health problems (see references cited in World Health Organization *et al.*, 2004; Patel *et al.*, 2007; Barry and Friedli, 2008; Jané-Llopis and Braddick 2008; Jenkins, 2008; Barry, 2009). For adults, poor mental health is consistently associated with unemployment, less education, low-status occupations, low income or material standard of living. Evidence suggests that this relationship is complex: growing up in a poor household increases the risk of exposure to adversities such as inadequate education and living in a neighbourhood characterised by absence of social networks, risk factors for mental health problems. Conversely, mental health problems can contribute for some individuals to educational underachievement and loss of employment (Green *et al.*, 2005; Parry-Langdon *et al.*, 2007; Patel *et al.*, 2007).

For children, the situation is complicated by the fact that both the state of social exclusion of their parents/household as well as their own impacts on their mental health and there can be a flow-on effect from one generation to another. Various measures of economic disadvantage and social deprivation based on household characteristics have been shown to be associated with higher rates of mental health problems among children. For example: being in the lowest decile of gross weekly household income (a clear gradient in effect exists between mental health problems and economic disadvantage assessed by income); the household being in receipt of state benefits; parental educational qualifications (a clear difference exists between parents with a qualification of some kind and those with none); unemployment within the household; low socio-economic class of head of the household (assessed by occupational group); growing up in a disadvantaged neighbourhood (in terms of unemployment, instability, average income and high numbers of recipients of welfare benefits); living in an area classed as 'hard pressed' compared to areas classed as 'wealthy achievers' or 'urban prosperity';[41] and social or private renting compared with owner occupiers (Green *et al.*, 2005; Parry-Langdon *et al.*, 2007; see references cited in Jané-Llopis and Braddick, 2008; Meltzer, 2008).

Children living in low socio-economic status households and disadvantaged neighbourhoods suffer more anxiety, depression, substance abuse, delinquent behaviour and poor adaptive functioning (World Health Organization *et al.*, 2004; Jané-Llopis and Braddick, 2008). The negative effects on parents of living in a deprived neighbourhood (higher level of depression, less positive parenting and more negative parenting) partially mediate the negative influence of poor neighbourhoods on child outcomes (Jenkins, 2008).

In a three-year follow-up survey of children (originally aged 5 to 16 years) living in households in Great Britain, an increased likelihood of the onset of a mental health problem was associated with no parent in the household working, living in rented accommodation and a low weekly household income. An increased likelihood of the onset of a conduct disorder was also associated with families where the mother had no educational qualifications compared with any qualifications and low occupational status (Parry-Langdon *et al.*, 2007).

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[41] ACORN (A Classification of Residential Neighbourhoods) a geo-demographic classification combining geographical and demographic characteristics to distinguish different types of people in different areas of Great Britain.

Children aged 5 to 10 years and 11 to 15 years who are looked-after by local authorities in Scotland have been found to be about six and four times, respectively, more likely to have a mental health problem than those living in private households (Meltzer *et al.*, 2004). Conduct disorders contribute the greatest to these differences.

Homeless families are an increasing marginalised part of society and homelessness also has a negative impact on children's mental health. Homeless children are significantly more likely than the general population, or comparison children in stable housing, to have higher rates of mental health problems (behavioural and emotional problems), although the social profile of homeless children includes many risk factors for the development and persistence of mental health problems (see references cited in Vostanis *et al.*, 1998 and Karim *et al.*, 2006). For instance, these mental health problems are found in families living in adversity and found to be related to adverse life events that precipitate homelessness e.g. family breakdown, abuse, domestic violence and poor social networks (see sections 3.3.1 Family relations, 3.5.2 Social networks and 3.6.5 Violence). Children and their mothers have been shown to continue to experience high rates of mental health problems whilst resident in hostels and after rehousing (Vostanis *et al.*, 1998; Karim *et al.*, 2006).

Mental wellbeing is also related to observed socio-economic social inclusion; higher parental education level and greater family affluence have been shown to be associated with more positive perceptions, positive emotions and mental wellbeing in children, while social marginalisation during adolescence has been found to negatively affect mental wellbeing leading to hopelessness, lack of control and loss of self-confidence (Jané-Llopis and Braddick, 2008; Foresight, 2008).

For young people themselves unemployment is a risk factor for mental health problems such as depression and anxiety as well as being a risk factor for suicide (Patel *et al.*, 2007). Longitudinal research with Australian adolescents has indicated that those who are unemployed after leaving school report lower levels of life satisfaction and increased depressive affect (Feather and O'Brien, 1986 cited in Proctor *et al.*, 2009). Other Australian work has also shown that unemployed school leavers have increased depression, external locus of control and decreased self-esteem compared to employed school-leavers (Patton and Noller, 1984 cited in Proctor *et al.*, 2009) and that nine months after leaving school those employed full-time report higher life satisfaction and career decision-making self-efficacy, than full-time students, full-time students with part-time work and those in the labour market but not employed (Creed *et al.*, 2003 cited in Proctor *et al.*, 2009).

Children's mental health problems are also associated with less education. In a three-year follow-up survey, for those aged over 16 years at follow-up, the likelihood of having left full-time education was higher for those with a persistent mental health problem, if they had recovered from an emotional or conduct disorder as opposed to not having the disorder, if they had developed a conduct disorder as opposed to not having a conduct disorder at the outset or follow-up. Those young people who had developed a conduct disorder by follow-up were more likely to have no qualifications (Parry-Langdon *et al.*, 2007).

Children accounts reveal several key dimensions of poverty and living in disadvantage that they see as impacting on their mental health, frequently causing feelings of anxiety. This

includes economic and material impoverishment, social exclusion, including fears of marginalisation, and the deep emotional trauma that can accompany experiences of stigma and social difference (Ridge, 2009). They also view being excluded or not accepted by friends, being left out and lonely as detrimental to their mental health (Harden *et al.,* 2001).

## Indicators

| Social inclusion | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Workless households | • Percentage of children and young people aged 15 years and under who live in workless households | • Annual Population Survey |
| Positive and sustained destinations | • Percentage of school leavers (from Scottish publicly funded schools) in positive and sustained destinations (further education, higher education, employment, volunteering or training) 9 months after leaving school | • School Leavers Destination Survey, Follow-up Survey |
| Education | • Percentage of 16 and 17 year olds with at least one academic or vocational educational qualification<br><br>• Percentage of children and young people leaving school with a qualification in English and Maths at least at SCQF Level 3 (Access 3 or Standard Grade at Foundation level)<br><br>• Percentage of P3, P7 and S2 pupils estimated to have 'well-established' or better skills at the expected levels for their stages in mathematics[1, 2]<br><br>• Percentage of P3, P7 and S2 pupils estimated to have 'well-established' or better skills at the expected levels for their stages in reading[1, 3] | • Annual Population Survey<br>• Scottish Government School Education Statistics<br><br>• Scottish Survey of Achievement<br><br>• Scottish Survey of Achievement |
| School exclusion | • Exclusions (temporary and removal from register) from local authority schools per 1,000 pupils in the past year | • Scottish Government School Education Statistics |
| Homelessness | • Cases assessed as homeless or potentially homeless in the past year where the main applicant was aged 16 or 17 years old at the time of assessment per 1,000[4]<br><br>• Children and young people in cases assessed as homeless or potentially homeless per 1,000 aged 15 years and under, or aged 16 to18 years (who are either receiving or about to begin full-time education or training, or are, from some other reason unable to support themselves), in the past year[4] | • Scottish Government Housing and Regeneration Statistics<br>• Scottish Government Housing and Regeneration Statistics |
| Feeling lonely | • Percentage of P7, S2 and S4 pupils who never felt lonely in the last week[1] | • Health Behaviour in School-aged Children Survey (HBSC) |

| | | |
|---|---|---|
| Children looked after | • Children and young people looked after by local authorities per 1,000 aged 17 years and under in the past year | • Scottish Government Children and Young People Statistics |
| Additional support needs | • Pupils classified as having additional support needs per 1,000 pupils in the past year | • Scottish Government School Education Statistics |

[1] P3, P7, S2 and S4 pupils are circa 7, 11, 13 and 15 year olds, respectively.

[2] From 2010 the Scottish Survey of Achievement was replaced by the Scottish Survey of Literacy and Numeracy. This indicator will be revised to reflect this new data source when the Scottish Survey of Literacy and Numeracy reports on numeracy in 2012.

[3] From 2010 the Scottish Survey of Achievement was replaced by the Scottish Survey of Literacy and Numeracy. This indicator will be revised to reflect this new data source when the Scottish Survey of Literacy and Numeracy reports on literacy in 2013.

[4] The data include some children and young people who are classified as homeless more than once in a year. However, the number is small and declining.

## Other key national Scottish indicators

| Social inclusion | |
|---|---|
| **Indicator set** | **Measure Indicator and data source** |
| **All the Social inclusion indicators** | |
| GIRFEC | • SHANARRI indicators - Included |
| **Positive and sustained destinations** | |
| Adult Mental Health Indicator Set | • Percentage of adults (women aged 16-59 and men aged 16-64), excluding students, who are unemployed or economically inactive and who want to work, Annual Population Survey |
| Early Years Framework, Core 10 | • Percentage of young people in sustainable post school destinations, Scottish Government |
| Equally Well EY10 | • School leavers in positive and sustained destination |
| National Performance Framework | • Increase the proportion of young people in learning, training or work - Proportion of school leavers (from Scottish publicly funded schools) who are in a positive destination (Further Education; Higher Education courses; employment; training; and volunteering) approximately 9 months after leaving school, School Leavers Destination Survey, Follow-up |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • School leavers – positive and sustained destinations – Proportion of school leavers (from Scottish publicly funded schools) in positive and sustained destinations (further education, higher education, employment or training), Scottish Government/Skills Development Scotland |
| Single Outcome Agreement Local Outcome Indicator (October 2011) | • Percentage of school leavers in positive and sustained destinations, School Leavers Destination Survey, Follow-up |
| **Education** | |
| Adult Mental Health Indicator Set | • Percentage of adults (women aged 16-59 and men aged 16-64) with at least one academic or vocational educational qualification, Annual Population Survey |

| | |
|---|---|
| Curriculum for Excellence | • Numeracy and Mathematics: experiences and outcomes |
| Curriculum for Excellence | • Literacy and English: experiences and outcomes, Readings |
| Early Years Framework | • Achievement in literacy and numeracy by P3/P4 - Percentage of pupils demonstrating 'well-established or better' skills at the expected level in mathematics, Scottish Survey of Achievement, to be replaced under Curriculum for Excellence with The Scottish Survey of Literacy and Numeracy |
| Early Years Framework | • Achievement in literacy and numeracy by P3/P4 – Percentage of pupils demonstrating 'well-established' or better reading skills at the expected level for their stage, Scottish Survey of Achievement, to be replaced under Curriculum for Excellence with The Scottish Survey of Literacy and Numeracy |
| Early Years Framework | • Achievement in literacy and numeracy by P3/P4 – Percentage of pupils writing at the expected level or above for their stage, Scottish Survey of Achievement, to be replaced under Curriculum for Excellence with The Scottish Survey of Literacy and Numeracy |
| Equally Well EY8 | • Improved health and wellbeing of looked after children |
| Equally Well EY9 | • Children and young people's skills for life, including literacy and numeracy |
| GIRFEC | • SHANARRI Indicators - Achieving |
| National Performance Framework | • Improve the skill profile of the population - Proportion of adults aged 16-64 with low or no qualifications (SCQF level 4 or below), Annual Population Survey |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • Average tariff score of all pupils on the S4 roll – Average tariff score (pupil attainment) of all pupils enrolled in stage S4 of publicly funded secondary schools, Scottish Government |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • Education outcomes for looked after children – Average tariff score (pupil attainment) of all 'looked after pupils' enrolled in stage S4 of publicly funded secondary schools, Scottish Government |
| Single Outcome Agreement Local Outcome Indicator (October 2011) | • Percentage of the population (aged 16-64) with low or no qualifications (qualifications at SCQF (Scottish Credit & Qualifications Framework) level 4 or lower), Annual Population Survey |
| Single Outcome Agreement Local Outcome Indicator (October 2011) | • Attainment of national qualifications by S4 pupils - percentage of the S4 roll achieving specified levels of qualification: usually English and Maths at SCQF (Scottish Credit & Qualifications Framework) level 3 and above, 5+ qualifications at SCQF level 3 and above, 5+ qualifications at SCQF level 4 and above and 5+ qualifications at SCQF level 5 and above, Scottish Qualifications Authority<br>• Attainment of national qualifications by S5 pupils - percentage of the S5 roll achieving specified levels of qualification: usually 1+ qualification at SCQF (Scottish Credit & Qualifications Framework) level 6 and above, 3+ qualifications at SCQF level 6 and above and 5+ qualifications at SCQF level 6 and above, Scottish Qualifications Authority<br>• Attainment of national qualifications by S6 pupils - percentage of the S6 roll achieving specified levels of qualification: usually 3+ qualifications at SCQF |

|  | (Scottish Credit & Qualifications Framework) level 6 and above, 5+ qualifications at SCQF level 6 and above and 1+ qualification at SCQF level 7 and above, Scottish Qualifications Authority |
|---|---|
| **Homelessness** | |
| National Performance Framework | • Improve access to suitable housing options for those in housing need - Percentage of homeless households that are entitled to settled accommodation, Scottish Government, Operation of the Homeless Persons Legislation in Scotland |
| Single Outcome Agreement Local Outcome Indicator (October 2011) | • Homeless households in temporary accommodation as percentage of all households, Scottish Government |
| Single Outcome Agreement Local Outcome Indicator (October 2011) | • Proportion of homeless households assessed as priority homeless, Scottish Government |
| **Children looked after** | |
| Early Years Framework, Core 10 | • Number of children pre-birth to 8 being looked after by Local Authorities (looked after a) at home b)and accommodated), Scottish Government |
| GIRFEC | • SHANARRI Indicators - Safe, Healthy, Active, Nurtured, Achieving, Respected and Responsible and Included |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • Children looked after – Number of children looked after by Local Authority (aged 0-18 years) expressed as a number and crude rate per 1,000, Scottish Government |

### 3.6.3 Discrimination

#### Working understanding

Discrimination is the treatment (directly or indirectly, mandated by law (*de jure*) or by custom or practice (*de facto*)) of a particular group of people less favourably than others, usually in relation to race, colour, ethnicity, religion, gender, disability, sexual orientation or age. It includes discrimination against and negative attitudes or behaviour towards children and young people.

A review of the health impact of discrimination defined it as follows:

> 'discrimination is a socially structured and sanctioned phenomenon, justified by ideology and expressed in interactions, among and between individuals and institutions, intended to maintain privileges for members of dominant groups at the cost of deprivation for others' (Kreiger, 1999).

A wide perspective on discrimination has been taken to include harassment and abuse due to discrimination.

This construct overlaps with Equality and Social Inclusion (sections 3.6.1 and 3.6.2, respectively)

#### Rationale

Discrimination, on the grounds of race, gender, religion etc, impacts adversely on mental health, affecting a person's dignity and self-esteem, and can lead to a sense of alienation, isolation, fear and intimidation and can make it difficult for individuals to feel socially included and to integrate into society (see section 3.6.2 Social inclusion) (Gostin, 2001 cited in World Health Organization *et al.*, 2004; Tidyman, 2004 cited in Myers *et al.*, 2005). There is a substantial literature on the health and mental health impact of all forms of discrimination, both experience and perceptions contribute independently to mental health outcomes.

Racial discrimination is a risk factor for common mental health problems in ethnic minority groups and is associated with poorer mental health (Rogers and Pilgrim, 2003; Krieger, 2000 and Shah, 2004 cited in Myers *et al.*, 2005). For example, a diminished sense of wellbeing, low self-esteem, lack of control or mastery, psychological distress, and depression, anxiety and other mental illnesses (Brown *et al.*, 2000, Kessler *et al.,*1999, Williams and Williams-Morris, 2000 and Williams *et al.,* 2003 cited in World Health Organization *et al.*, 2004). Both the experience of racial harassment as well as perceptions of racial discrimination are a significant factor in the poor health of black and minority ethnic groups and numerous studies indicate the impact of racism, racist victimisation and discrimination for people from black and minority ethnic communities on mental health and wellbeing (Nazroo and Karlsen, 2001; Chakraborty and McKenzie, 2002). Similarly, in the case of sexual orientation, homophobia/discrimination experiences are associated with psychological distress (Cochran, 2001 and McNair *et al.*, 2001 cited in Myers *et al.*, 2005), with homophobia shown to predict psychological distress and suicidal ideation in gay men (Meyer, 1995 cited in Stewart-Brown, 2005).

In a qualitative study of suicide and self-harm among young gay and bisexual men (aged 15 to 26 years), the rate of reported self-harm and of attempted suicide was disproportionately high when compared with the general population. An important contributory factor was thought to be the fact that young gay and bisexual men may experience suicidal feelings because of homophobic bullying, rejection and hostility when they 'come out,' the stress of remaining 'closeted' or of not being comfortable about their sexual orientation (Hutchison *et al.*, 2003).

Many people with disabilities and mental health problems also face stigma and discrimination which can be very debilitating and the biggest barrier for social inclusion (Social Exclusion Unit, 2004). Children and young people are well aware of the stigma of being diagnosed with a mental health problem and the impact that this has on their mental wellbeing (Shucksmith *et al.*, 2009).

### Indicators

| Discrimination | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| *Discrimination and harassment [R]* | • *Assessment of whether children and young people feel that they have been unfairly treated, discriminated against, harassed or abused due to discrimination* | • *No suitable data source identified* |
| *Perception of attitude of adults towards children and young people [R]* | • *Percentage of children and young people who in general think adults have a lot or a fair amount of trust in young people today* | • *No suitable data source identified* |
| *Stigma towards children and young people [R]* | • *Assessment of whether children and young people perceive themselves to be labelled or stigmatised in some way* | • *No suitable data source identified* |

[R] Indicates that there is a recommendation attached to the indicator.

### Recommendations
#### Discrimination and harassment
There is a need to collect data on whether children and young people feel that they have been discriminated against. Suitable question(s) should be identified or developed and included in a routine national survey.

Collection of data on whether children and young people feel that they have been discriminated against is consistent with the recent Programme for Government, launched 7th September 2011, which contains a new Rights of Children & Young People Bill for consultation which will enshrine in law the requirement for the Scottish Government to have due regard to the UN Convention of the Rights of the Child when exercising its responsibilities. The bill will ensure that all of the Scottish Government's policies and legislation take account of and promote the rights of children and young people, and aims to set an example for the wider public sector. Suitable question(s) should be identified or developed and included in a routine national survey.

### Perception of attitude of adults towards children and young people

There is a need to collect data on children and young people's perception of the attitude of adults towards children. Suitable question(s) should be identified or developed and included in a routine national survey.

Collection of data on children and young people's perception of the attitude of adults towards children is consistent with the recent Programme for Government, launched 7th September 2011, which contains a new Rights of Children & Young People Bill for consultation which will enshrine in law the requirement for the Scottish Government to have due regard to the UN Convention of the Rights of the Child when exercising its responsibilities. The bill will ensure that all of the Scottish Government's policies and legislation take account of and promote the rights of children and young people, and aims to set an example for the wider public sector. Suitable question(s) should be identified or developed and included in a routine national survey. The Office for National Statistics' question developed for 16 to 24 year olds (Deviren and Babb, 2005) could be considered as a starting point

### Stigma towards children and young people

There is a need to collect data on stigma towards children young people should be collected in a national survey. Suitable question(s) should be identified or developed and included in a routine national survey.

Collection of data whether children and young people perceive themselves to be stigmatised is consistent with the recent Programme for Government, launched 7th September 2011, which contains a new Rights of Children & Young People Bill for consultation which will enshrine in law the requirement for the Scottish Government to have due regard to the UN Convention of the Rights of the Child when exercising its responsibilities. The bill will ensure that all of the Scottish Government's policies and legislation take account of and promote the rights of children and young people, and aims to set an example for the wider public sector. Suitable question(s) should be identified or developed and included in a routine national survey. Surveys which have previously collected data on aspects of stigma towards young people (e.g. Being Young in Scotland 2009 and Office for National Statistics 2003 Citizenship survey's young people's boost) could offer insight into how best to collect this data.

### Other key national Scottish indicators

| Discrimination | |
|---|---|
| **Indicator set** | **Measure Indicator and data source** |
| *All the discrimination indicators* | |
| GIRFEC | • SHANARRI indicators - Included |
| *Discrimination and harassment* | |
| Adult Mental Health Indicator Set | • Percentage of adults who report having been unfairly treated or discriminated against in the past year, Scottish Health Survey |
| Adult Mental Health Indicator Set | • Percentage of adults who think racial discrimination is a big problem in Scotland, Scottish Crime and Justice Survey |
| Adult Mental Health Indicator Set | • Percentage of adults who have personally experienced harassment or abuse in the past year due to discrimination, Scottish Health Survey |

### 3.6.4  Physical environment

#### Working understanding
This construct covers the built environment such as internal housing characteristics, external housing (design and maintenance), local area characteristics and availability of facilities for children and young people, and the natural environment e.g. parks, green and open spaces.

There are clear links between the physical environment and other factors such as play, physical activity and social relations (see sections 3.2.1 Learning and development, 3.2.2 Healthy living, 3.4.2 Peer and friend relationships and 3.5.2 Social networks) that impact on children's mental health.

#### Rationale
An emerging body of evidence suggests that the physical environment (built and natural) can affect the mental health of children and young people (Clark *et al.*, 2006; Cooper *et al.*, 2008; Kirkwood *et al.*, 2008).  However, the relationship between environment and mental health is not unproblematic.  There are variations in the strength of the evidence and in addition many aspects of the environment have been little studied.  Moreover, there are significant methodological challenges in demonstrating the precise relationship between elements of the physical environment and mental health impact (Clark *et al.*, 2006; Cooper *et al.*, 2008).  This affects the conclusions that can be drawn and caution is therefore needed in interpreting the evidence.

Despite these limitations, research highlights the potential importance of the quality of the physical environment for mental health.  Characteristics of the built environment can have direct effects on mental health (e.g. housing and neighbourhood quality, crowding, noise, spatial density (home and neighbourhood), access to nature/green spaces, and tenure) as well as indirect effects through psychosocial processes (e.g. personal control, socially supportive relationships, recovery from stress) (Evans, 2003; Clark *et al.*, 2006; Cooper *et al.*, 2008; Foresight, 2008).  Many of the properties found in physical environments interact with one another and can produce an additive effect (Cooper *et al.*, 2008).

Recent reviews have shown an equivocal picture and concluded that there is:

- evidence that children's mental development is associated with housing quality; children living in poorer quality housing have higher levels of stress hormones and behavioural problems (Kirkwood *et al.*, 2008) and those in better-quality housing have fewer referrals to children's centres, fewer feelings of learned helplessness and more task persistence than children living in poorer-quality housing (LeClair and Innes, 1997, and Evans *et al.*, 2001 cited in Cooper *et al.*, 2008).  The percentage of children reporting episodes of psychological distress is also correlated with the number of housing problems (Hunt, 1990 cited in Cooper *et al.*, 2008).  Dampness, mould and cold indoor conditions are similarly associated with anxiety and depression (Hyndman, 1990 cited in Cooper *et al.*, 2008). Living in a cold house can impair mental health at any age and adolescents have a fivefold increased risk of multiple mental health problems (Marmot *et al,* 2011 cited in Dear and McMichael, 2011) and excessive indoor temperatures have been linked with irritability and social intolerance (Collins, 1993, as cited by Krieger and Higgins, 2002 in Cooper *et al.*, 2008).

- evidence that dwelling type can impact on mental health; children living in flats, particularly in poorer housing areas, have greater incidences of psychological distress such as depression, inability to concentrate and feelings of hopelessness, than children living, for example, in houses with gardens (Ineichen and Hooper, 1974, Richman, 1977 Saegert, 1982 and Blackman *et al.*, 1989 cited in Cooper *et al.*, 2008).  Housing tenure may also affect mental health.  For example, a cross-sectional study has shown that living in rented accommodation is associated with psychological distress and prevalence of major depression (after adjustment for socio-economic factors) for adolescents aged 12 to 14 years, although not for older adolescents (15 to 19 years) (Cairney, 2005 cited in Clark *et al.*, 2006).

- evidence from cross-sectional studies suggesting that children from crowded, high spatial density homes may have poorer psychological health including a greater sense of helplessness, although the studies have methodological limitations (Maxwell, 1996, Evans *et al.*, 1998 and Evans, 2001 cited in Clark *et al.*, 2006 and Cooper *et al.*, 2008).  When chronically exposed to both crowded home settings and child care centres, children are likely to experience increases in behavioural disturbances.

- mixed, inconclusive evidence for the effect of chronic noise exposure and suggestions that noise can exacerbate existing mental health problems (Clark *et al.*, 2006; Cooper *et al.*, 2008).  Whilst some cross-sectional studies find adverse psychological stress reactions, more psychological distress, more annoyance and lower quality of life for children exposed than for children living in quiet communities and differential effects by type of mental health problem, others find no such associations.  A longitudinal study of aircraft noise exposure in children also found no association of exposure with mental health after a one year follow-up (Haines, 2001a cited in Clark *et al.*, 2006).  The lack of longitudinal research limits conclusions, as individuals experiencing poor mental health are more likely to evaluate the environment negatively, questioning the direction of causality.

- evidence from a randomized controlled trial that housing relocation had a positive effect on the mental health of male, but not female, children three years after implementation;  boys who moved to low-poverty neighbourhoods reported a reduction in anxiety, depressive and dependency problems than those who stayed in high-poverty neighbourhoods (Leventhal and Brooks-Gunn, 2003 cited in Clark *et al.*, 2006 and Cooper *et al.*, 2008).

- sparse evidence of the effects of the quality of physical environment on mental wellbeing.  An Australian study in 18 neighbourhoods found that children from neighbourhoods with high problem levels, living on industrial or commercial streets or in poorly maintained houses and/or rented accommodation report lower life satisfaction than children from residential neighbourhoods (Homel and Burns, 1989 cited in Proctor *et al.*, 2009).

- evidence that exposure to certain environmental toxic substances, for instance metals such as lead, is associated with detrimental affects on children's mental health (Spreen *et al.*, 1984 and Needleman, 1994 cited in Cooper *et al.*, 2008; Learning and Developmental Disabilities Initiative, 2008).  This includes exposure in the prenatal period.

Studies also find an association between access to nature, green or open spaces and better mental health in children (Clark *et al.*, 2006; Lester and Russell, 2007; Cooper *et al.*, 2008). For instance, reviews identify cross-sectional evidence that children with more nature near their home exhibit less psychological distress and the presence of nearby nature protects children from the impacts of life stress (Wells and Evans, 2003 cited in Clark *et al.*, 2006 and

Cooper *et al.*, 2008). Those with access to a garden, for example, have been shown generally to have fewer mental health problems (Pretty *et al.*, 2007 cited in Lester and Russell, 2007) and it is has been suggested that the degree of contact with nature in a child's everyday environment is linked to levels of cognitive functioning (Wells, 2000 cited in Lester and Russell, 2007). Participation in natural environments has also been found to have potential benefit; for instance children exposed to green settings have been found to feel more relaxed, less stressed, rejuvenated, refreshed, more positive and able to cope and also to struggle less with a chronic attention deficit than children unable to access green settings (Cooper *et al.*, 2008). Further evidence suggests that engagement with nearby natural places provides restoration from mental fatigue and support for more resilient and cooperative behaviour (Lester and Russell, 2007).

Some aspects of health benefits from outdoor use are particular to, or more important for, children than adults – specifically the effects of contact with nature and time spent outside on attention deficit hyperactivity disorder (symptoms are generally less severe for those with an opportunity to play in outdoor settings which incorporates aspects of nature), the health benefits of outdoor play, and the effect of contact with nature on the alleviation of teenage anxiety and depression (Lester and Russell, 2007). Wider suggested positive benefits of access to green space and nature important for mental health include greater levels of physical activity, increased social interaction and inclusion, free play opportunities (especially unstructured), educational benefits from learning in outdoors setting, faster recovery from illness and reduced violence (Lester and Russell, 2007).

## Indicators

| Physical environment | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Neighbourhood satisfaction | • Percentage of 16 and 17 year olds who rate their neighbourhood as a very or fairly good place to live<br>• Percentage of S2 and S4 pupils who feel that the area they live is a really good or good place to live[1] | • Scottish Household Survey<br>• Health Behaviour in School-aged Children Survey (HBSC) |
| Free time places | • Percentage of S2 and S4 pupils who agree a lot or a bit that there are good places (e.g. leisure centres, parks, shops) to spend their free time in the area that they live[1] | • HBSC |
| *Greenspace* [R] | • *Assessment of whether children and young people feel they can access green and open spaces in their neighbourhood* | • *No suitable data source identified* |
| House condition | • Percentage of households with children aged 17 years and under where the highest income householder (or their spouse/partner) rates the condition of their house or flat as very or fairly good | • Scottish House Condition Survey |
| Overcrowding | • Percentage of households with children aged 17 years and under where the highest income | • Scottish House Condition Survey |

| | householder (or their spouse/partner) feels their home has too few rooms | |
|---|---|---|

[1] S2 and S4 pupils are circa 13 and 15 year olds, respectively.
[R] Indicates that there is a recommendation attached to the indicator.

## Recommendation

### Greenspace

Further work is required to determine how best to measure children and young people's contact with greenspace.

Evidence is emerging for a link between contact with nature, green and open spaces and children's mental wellbeing. How this may be captured in an indicator is complicated and requires more work to determine what should be assessed, this will assist in developing suitable question(s) for inclusion in routine national surveys. A data-less indicator of '*assessment of whether children and young people feel they can access green and open spaces in their neighbourhood*' has been proposed but may not prove to be the most appropriate indicator relating to greenspace.

## Other key national Scottish indicators

| Physical environment | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| **Neighbourhood Satisfaction** | |
| Adult Mental Health Indicator Set | • Percentage of adults who rate their neighbourhood as a very or fairly good place to live, Scottish Household Survey |
| Early Years Framework, Core 10 | • Percentage of parents to a child living within the household who rate their neighbourhood as a good place to live, Scottish Household Survey |
| National Performance Framework | • Improve people's perceptions of their neighbourhood - Percentage of adults who rate their neighbourhood as a very good place to live, Scottish Household Survey |
| Single Outcome Agreement Local Outcome Indicator (October 2011) | • Percentage of adult residents stating their neighbourhood is a 'very good' place to live, Scottish Household Survey |
| **Free time places** | |
| GIRFEC | • SHANARRI indicators - Active |
| *Greenspace* | |
| Adult Mental Health Indicator Set | • Percentage of adults who feel they have a safe and pleasant park, green or other area of grass in their neighbourhood, excluding personal private garden space, that they and their family can use, Scottish Household Survey |
| Equally Well EY10 | • Children have more active lifestyles, access to green space and opportunities to play |
| GIRFEC | • SHANARRI indicators - Active |

| **House condition** | |
|---|---|
| Adult Mental Health Indicator Set | • Percentage of adults rating the condition of their house or flat as very or fairly good, Scottish House Condition Survey |
| Single Outcome Agreement Local Outcome Indicator (October 2011) | • Percentage of adults rating the condition of their house or flat as good, Scottish House Condition Survey |
| **Overcrowding** | |
| Adult Mental Health Indicator Set | • Percentage of adults who feel their home has too few rooms, Scottish House Condition Survey |

### 3.6.5  Violence

### Working understanding

This relates to the intentional use of physical force or power, threatened or actual, against a child or young person that either results in, or has a high likelihood of resulting in, injury, death, psychological harm, maldevelopment or deprivation.[42]  Violence is wider than physical violence and includes violence of a sexual, psychological or emotional nature.  It also includes witnessing violence, especially domestic abuse or violence against a loved sibling, parent, or other relative or adult.

This construct clearly overlaps with other constructs Life events, Family relations, Peer and friend relationships, Safety and Social inclusion (sections 3.2.6, 3.3.1, 3.4.2, 3.5.5 and 3.6.2, respectively).

### Rationale

Living with or experiencing violence or the fear of violence, which can include psychological abuse, is a significant risk factor for mental health.  This includes domestic abuse/violence (especially significant for children), child abuse and community violence (Golding, 1999; Department of Health, 2002; Department of Health, 2003).  Chronic vigilance (related to fear of threat) may lead to metabolic disturbance but the health and mental health impacts are not well documented (Taylor, 1998).  Children and young people identify the negative impact that violence in the neighbourhood has on their mental health (Shucksmith *et al*., 2009).

Violence is an important contributor to the burden of disease in young people and strong evidence indicates a relationship between experience of violence and adverse mental health outcomes (Patel *et al*., 2007).  Mental health problems such as depression, anxiety, conduct disorders, suicidal behaviour, and substance abuse and post-traumatic stress disorder (PTSD) can occur as a result of exposure to violence as well as lower self-esteem and satisfaction with life (Fryers, 2007; Patel *et al*., 2007).

A considerable volume of evidence indicates that child abuse, and especially child sexual abuse, has a very powerful negative and far reaching impact on a majority of victims.  The impact includes major psychiatric disorders, personality disorders, conduct disorders, high-risk lifestyles, aggression, self-destructive and violent behaviours, anti-social behaviour, problems with relationships, impaired capacity for parenting, and physical illness (Johnson *et al*., 2002; Youcha, 2006; Fryers, 2007; Glaser, 2008).  Sexually abused children can also show age-inappropriate sexual behaviour, depression and anxiety (both higher in adolescents than young children in non-clinical samples), emotional and/or behavioural difficulties, PTSD, suicide ideation and self-harm both mainly confined to adolescence, more bulimic symptoms (a significant proportion of children with eating disorders report a history of child sexual abuse), difficulties with peer relationships, low self-esteem, shame and lack of trust, substance abuse and involvement in prostitution in adolescents (Glaser, 2008).

An association between exposure to violence and emotional and behavioural problems is evident in children even before they can talk (Youcha, 2006).  Very young children who

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[42]  Adapted from the World Health Organization definition (Krug *et al.,* 2002).

witness either domestic or community violence have shown increased irritability, immature behaviour, developmental regression and fear as well as temper tantrums, clinging and difficulty separating from parents and symptoms of PTSD, sleep disturbances and withdrawal (Youcha, 2006).

A negative relationship exists between being threatened or injured by someone with a weapon, having property stolen or damaged and life satisfaction, as well as between dating violence and life satisfaction (Valois *et al.*, 2001 cited in Proctor *et al.*, 2009). Increases in dating violence (physical or emotional) contribute to increased post-traumatic stress, anxiety, depression and dissociation, while severe dating violence and forced sex is associated with poor mental health including low life satisfaction and suicide ideation/attempts in adolescent female victims and male perpetrators (Coker *et al.*, 2000 cited in Proctor *et al.*, 2009). Physical and emotional abuse in an adolescent relationship can have a more harmful effect on mental health than during adulthood (Callahan *et al.*, 2003, cited in Proctor *et al.*, 2009).

Witnessing violence in the home and/or neighbourhood is also associated with heightened levels of adverse behavioural and emotional problems (e.g. depression, anxiety, anger, deviant and aggressive behaviour and PTSD) (Johnson *et al.*, 2002 and references therein; Jenkins, 2008; see references cited in Fowler *et al.*, 2009). A systematic review found that six cross-sectional studies showed an association between being a witness or victim of crime and poorer mental health: anxiety; depression (although not all studies agreed); obsessive compulsive disorder; hostility; psychoticism; PTSD; suicide ideation and attempts (although not all studies agreed) (Clark *et al.*, 2006). Children's prolonged exposure to chronic neighbourhood violence is associated with PTSD, emotional distress, depression, fear, memory problems, aggression and social withdrawal (see references cited in Johnson *et al.*, 2002).

Victimisation by community violence, however, most predicts mental health problems compared to witnessing or hearing about this violence (Fowler *et al.*, 2009). A recent meta-analysis assessing the relationship between childhood (pre-12 years) violence exposure (both within the household and community) and adolescence anti-social behaviour found that the effect was larger for victimisation than for witnessing, although the relationship appeared dependent on many influencing factors (Wilson *et al.*, 2009). The effects of community violence may also vary by developmental period, for instance younger children report more depressive symptoms.

Perceptions of levels of community violence are likely to be important influences on whether young people feel safe within their community (see section 3.5.5 Safety). For instance, an exploratory study examining the impacts of territorial behaviour, including gang culture, among young people in disadvantaged areas of British cities showed that some young people were fearful of attack outside their own areas, especially in the evening and at weekends (Kintrea *et al.*, 2008). This restricted mobility and could contribute to social exclusion. Similarly, territorial behaviour had an impact on the perception of safety by the wider community. An overlap between violence and bullying also exists (see section 3.4.2 Peer and friend relationships).

In Scotland, approximately half the incidents of reported domestic violence involve children (Humphreys *et al.*, 2008). Children living with domestic abuse are also more likely to experience physical or sex abuse and there is a strong association between child maltreatment and intimate partner violence within the same household (Youcha, 2006; Humphreys *et al.*, 2008; Jones, 2008).

Exposure to domestic violence can be in the form of: witnessing the act (seeing or hearing) and/or outcome; intervening in a situation; or suffering a deliberate injury or being used as a hostage to terrorise the non-abusive party (Humphreys *et al.*, 2008). Children exposed to domestic abuse exhibit higher rates of depression and anxiety, trauma symptoms, behavioural and cognitive problems and risk-taking behaviours, including substance uses, and early and multiple sexual partners, although inter-personal violence shows a weak to moderate effect on emotional and behaviour disturbances in children in meta-analyses (Jones, 2008). The effects seen, however, lose significance once persisting child abuse and other adverse events are accounted for, indicating only a weak causative link to emotional and behaviour disturbances in children and young people when considered in isolation, but becoming much more significant when combined with child maltreatment, emotional unavailability and other family adversity. The combined effects have potential to cause significant mental health problems. However, despite the absence of convincing evidence of long-term effects of inter-personal violence, unless accompanied by child abuse and other adversity, the effects are evident in the short-term.

The effects of witnessing domestic violence also differ with age and gender of the child. For instance, for young children there is an association with anxiety, bed wetting, stomach aches, sleep disturbances and temper tantrums, while for older boys aggression, disobedience, possible violence, truancy, and alcohol and drug use and for older girls anxiety and depression, a negative view of self, eating disorders and self-harm (Royal College of Psychiatrists, 2004). Relationships with mothers can also be undermined as experience of domestic abuse can force women and children to leave their communities and families. There are mixed findings on whether witnessing domestic abuse has a lesser impact than actual abuse but age, developmental stage and severity appear to be intervening variables (Humphreys *et al.*, 2008).

### Indicators

| Violence | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| *Domestic abuse [R]* | • *Percentage of children and young people aged 17 years and under who live in a household where there is domestic abuse* | • *No suitable data source identified* |
| *Child protection [R]* | • *Assessment of the number of children and young people requiring child protection[1]* | • *No suitable data source identified* |
| *Neighbourhood violence [R]* | • *Assessment of children and young people's exposure to violence in their neighbourhood* | • *No suitable data source identified* |

[1] The Scottish Government is currently developing a child protection indicator for the national performance framework. This will be aligned to, if appropriate.
[R] Indicates that there is a recommendation attached to the indicator.

## Recommendations

### Domestic abuse

Robust routine national data are required on children and young people affected by domestic abuse. Established work to improve current data should be monitored to determine the suitability of improved data for providing a robust indicator of domestic abuse.

The Scottish Crime and Victimisation Survey collects data on domestic abuse, however, work is underway seeking to improve this data. When available the suitability of this improved data for an indicator should be determined. Data on domestic abuse are also collected by the police force but currently this is not robust enough for the purposes of monitoring by a national indicator. Work through the Police Information Management strategy is seeking to collect consistent national systematic data on child concerns through a new child concern form, this includes domestic abuse. This form links to the Getting it Right for Every Child SHANARRI indicators and is due to be rolled out nationally. Once established, the suitability of this improved data for an indicator should be determined.

### Child protection

The suitability and appropriateness of a revised child protection indicator, currently in development for the Scottish Government's National Performance Framework, and improved child protection data for an indicator on child protection should be determined.

Whilst there has been work to improve child protection classification, which may help improve consistency, differences in service provision and reporting practice etc between areas mean that it is not possible to use current data on child protection for national monitoring purposes. Work is currently underway in the Scottish Government's child protection team to improve child protection data and this includes work to develop a revised child protection indicator for the Scottish Government's National Performance Framework.

### Neighbourhood violence

Robust routine national data are required on the exposure of children and young people to violence in their neighbourhood. National opportunities and approaches to capture this data should be explored.

Whilst data on violence is currently recorded by the police it is recognised that this mainly reflects incidence of more serious violence and is an underestimation of the true picture. Reporting practice can also varies between areas. Alternative approaches to capturing exposure to violence, including the use of survey methods should be considered.

### Other key national Scottish indicators

| Violence | |
|---|---|
| **Indicator set** | **Indicator and data source** |
| *All the violence indicators* | |
| GIRFEC | • SHANARRI indicators - Safe |
| *Domestic abuse* | |
| Adult Mental Health Indicator Set | • Percentage of adults physically or emotionally abused by a partner or ex-partner in the past year, Scottish Crime and Justice Survey |

| | |
|---|---|
| Early Years Framework | • % of people who have experienced domestic abuse in the past 12 months who had dependent children living with them at the time of the most recent / only incident, Scottish Crime and Justice Survey but Growing Up in Scotland Survey in future[43] |
| GIRFEC | • SHANARRI Indicators – Safe, Nurtured |

### Child protection

| | |
|---|---|
| Early Years Framework, Core 10 | • Number of children referred to the Children's Reporter on Care and Protection grounds, Scottish Children's Reporter Administration [44] |
| Early Years Framework | • Number of children placed on the child protection register in a year, Scottish Government[45] |
| GIRFEC | • SHANARRI Indicators – Safe, Nurtured, Respected |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • Child protection referrals - Child protection referrals, aged 0–15, crude rate per 1,000 population, Scottish Government[44] |

### Neighbourhood violence

| | |
|---|---|
| Adult Mental Health Indicator Set | • Percentage of adults who have experienced violence (definition covers assault and robbery), excluding violence by a household member, occurring locally in the past year, Scottish Crime and Justice Survey |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • Referrals to SCRA for violence-related offences – Children referred to the Scottish Children's Reporter Administration for violence-related offences, aged 8–15, crude rate per 1,000 population, Scottish Children's Reporter Administration[44] |
| ScotPHO Children and Young People Health and Wellbeing Profiles 2010 | • Children and young people (aged 0-24 years) living in 15% most 'crime deprived' datazones in Scotland, expressed as a number and percentage of the population in the Community Health Partnership, Scottish Index of Multiple Deprivation and National Records of Scotland |
| Single Outcome Agreement Local Outcome Indicator (October 2011) | • Rate of recorded crimes and offences per 10,000 population (options include crimes of violence and indecency which includes indecent assault) |

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[43] Note that the Scottish Crime and Justice Survey team do not currently consider their data robust enough for national monitoring used and the Growing Up in Scotland Survey does not provide monitoring trends.

[44] Note that local referring practice may vary making this data unsuitable for national monitoring.

[45] Note that the definition of what constitutes a Child Protection Referral varies between local authorities making this data unsuitable for national monitoring. The Scottish Government is seeking to improve consistency.

### 3.6.6  Culture

### Working understanding

This construct covers several aspects of contemporary culture, which is taken to mean the:

> 'language and accumulated knowledge, beliefs, assumptions, and values that are passed between individuals, groups and generations.' (Eckersley, 2006)

The construct therefore encompasses a range of diverse influences from consumerism/materialism and individualism to youth subculture and media (from print, films and radio, to television, computers, internet, mobile phones etc) which have the potential to shape how people see their place in the world.  Culture shapes notions of normality, success and failure in young people, notably in relation to gender and sexual identity, appearance and body image, as well as material possessions.  Understanding of how these influences operate and what impact they exert is an emerging area that warrants further attention.

The growing recognition of the importance of this area means that it has been selected for an indicator, to omit would be an oversight, although considerable further work will be required to define the construct and how it might be measured for an indicator.  The construct should therefore be viewed as a 'work in progress'.

This construct has overlaps with many of the other constructs including sections 3.2.2 Healthy living, 3.2.24 Spirituality, 3.3.1 Family relations, 3.4.2 Peer and friend relationships, 3.4.4 Pressures and expectations, 3.5.2 Participation, and 3.6.3 Discrimination.

### Rationale

Culture is a complex construct that has many dimensions and is transmitted within and across many domains, including families, communities, schools, faiths and the media, as well as among young people themselves.  It includes 'the language, accumulated knowledge, beliefs, assumptions and values that are passed between individuals groups and generations' (Eckersley, 2006).  Carlisle (2006) observes that it is important to note that we are not 'passive recipients' of culture (Carlisle, 2006). The values we hold, our ways of viewing the world and making sense of our place in it are not 'givens' that are imprinted on us.  Rather, culture is shaped and reproduced through human agency.

There are many diverse manifestations of sub-cultures among young people that may have differing implications for mental health.  Affiliations among young people can be associated both with positive effects such as a sense of belonging and shared identify and with negative effects on psychological wellbeing and behaviour through substance misuse or self-harm (North and Hargreaves, 2006; Young *et al.*, 2006).

Culture is of relevance to the mental health of children and young people in several ways. Commentators such as Eckersley observe that there are features of modern western culture and the ways in which these are transmitted through the media that appear to be damaging to the mental health of children and young people (Eckersley, 2006).  Eckersley draws attention to the impact of materialism, consumerism and individualism which have come to characterise Western societies. These forces increasingly shape popular notions of success but have the effect of undermining the conditions that are conducive to mental wellbeing,

such as social connectedness, trust and cooperation. Amongst other things they can also lead to: 'a heightened sense of risk, uncertainty and insecurity; a lack of clear frames of reference; a rise in personal expectations and a perception that the onus of success lies with the individual; too much freedom and choice, which is experienced as a threat or tyranny; the confusion of autonomy with independence or separateness; and a shift from intrinsic to extrinsic goals such as money, status and recognition', all of with affect mental wellbeing (Eckersley 2011). Eckersley continues to note that 'a cultural focus on the external trappings of 'the good life' increases the pressures to meet high, even unrealistic, expectations and so heightens the risks of failure and disappointment. It leads to an unrelenting need to make the most of one's life, to fashion identity and meaning increasingly from personal achievements and possessions and less from shared cultural traditions and beliefs. It distracts people from what is most important to well-being: the quality of their relationships with each other and the world, which, ideally, contribute to a deep and ensuring sense of intrinsic worth and existential certainty.'

A recent report from the Children's Society contrasts the many ways in which our children have never lived so well with growing unease about the quality of the experiences associated with growing up nowadays and increasing concerns about their mental wellbeing (Layard and Dunn, 2009).

The extent of contemporary children's immersion in consumer culture (represented by their spending power and commercial involvement) is 'unprecedented' (Schor, 2004). The commercialisation of childhood has been associated with a range of negative effects. For example, a survey of 10 to 13 year olds in USA found significant relationships between a consumer involvement scale (items such as 'I feel like other kids have more stuff than I do', 'I want to make a lot of money when I grow up') and psychosomatic symptoms, depression, anxiety and (low) self-esteem (Schor, 2004). Materialism has been shown to be positively related to parent-child conflict and disappointment after the refusal of purchase requests among Dutch 8 to 12 year olds and to lower opinion of parents and to parent-child conflict in 9 to 13 year olds in the UK (Buijzen and Valkenburg, 2003; Nairn et al., 2007). It has also been linked with emotional/behavioural problems in British 11 to 19 year olds and to reduced life satisfaction in Hungarian 14 to 21 year olds (Flouri, 2002; Piko, 2006), while increasing self-esteem appears to reduce materialism among children and adolescents (Chaplin and John, 2004).

The media exert a powerful influence on children and young people and exposure to the media, particularly television, has been shown to impact on children's behaviour, attention span, mood, body (dis)satisfaction and desire for material goods. With the exception of educational programmes (which tend to be slower-paced), TV viewing before age 3 years has been associated with attentional problems at age 7 years. It has been suggested that the (early) timing of such exposure may be critical for such effects (Christakis, 2009). Among slightly older children, exposure to educational TV has been linked positively with academic achievement and pro-social behaviours, while exposure to content that is purely entertainment or violent is inversely associated with achievement (Kirkorian et al., 2008; Wilson, 2008). There is also some evidence of positive relationships between the amount of TV watching and rates of anxiety and depression among children and early teens, and between children's bedroom TV and sleep disturbances (Kappos, 2007). A UK study of 9 to

13 year olds showed associations between media exposure (TV and computer use) and materialism (Nairn *et al.*, 2007).

Teenagers in particular are at the cutting edge of new-media platforms, such as social network sites, instant messaging and mobile phones. These are used mainly to reinforce existing relationships and peer communication. However, interactions with strangers may bring mental health benefits, such as reduced social anxiety as well as potential costs, such as sexual predation (Subrahmanyam and Greenfield, 2008). There is growing concern about the public health implications of the increasing number of young people who are becoming victims of aggression by peers using these forms of media (cyber-bullying), for example, embarrassing or threatening website postings or email/text messages (David-Ferdon and Hertz, 2007).

There is evidence that exposure to media violence increases the likelihood of aggressive behaviour for both children and adults in the immediate-term, probably via mimicry and increased arousal. Longitudinal studies also demonstrate that children's exposure to violent electronic media including violent games is associated with long-term increases in the risk of aggressive behaviour (Huesmann, 2007). However, these long-term effects are small, and the widely held belief that there are links between violent interactive video games and serious real-life violence has been questioned (Olson, 2004; Kappos, 2007).

The media, both print and electronic, are important influences on the development of body (dis)satisfaction and weight-control behaviours, particularly among females, including those as young as 5 years, among whom watching appearance-focused TV programmes has been shown to increase body dissatisfaction (Utter *et al.*, 2003; Dohnt and Tiggeman, 2006). A study with American adolescents found life satisfaction to be negatively related to poor perceptions of body weight, trying to lose weight, dieting to lose weight, vomiting or using laxatives or diet pills to lose weight (Valois *et al.,* 2003 cited in Proctor *et al.*, 2009). The relationship between body image and self-esteem has also been found to be high, especially with girls. On average one in three girls report being dissatisfied with their body weight and one in five are engaged in dieting and weight control. Comparable rates for boys are one in five and one in ten (WHO, 2004c cited in McCollam *et al.*, 2008).

However, the media, in particular the internet, can also have positive effects, even if indirect, on the mental health of children and young people. For example, a very high proportion of teenagers access the internet seeking health information, valuing the empathy and support found in some health-related chat rooms and the fact that sensitive issues can be discussed without the potential embarrassment of personal contact (Gray *et al.*, 2005).

Children and young people also identify feeling bad about body image and physical maturation as an aspect that contributes to mental health problems, some of this is attributed to the pressures inherent in modern society's image of what young women in particular should look like (Shucksmith *et al.*, 2009).

It is not known for certain what causes eating disorders (see section 3.1.2 Mental health problems) but many factors could play a part including social pressure of Western culture; the emphasis on certain body shapes is possibly a factor explaining why eating disorders are

more common in developed countries and evidence suggests that the globalisation of the media is associated with an increase in eating disorders in societies in which they were previously rare (Patel *et al.*, 2007).

## Indicators

| Culture | | |
|---|---|---|
| **Indicator** | **Measure** | **Data source** |
| Perception of looks | • Percentage of P7, S2 and S4 pupils who think they are average, quite or very good looking[1] | • Health Behaviour in School-aged Children Survey (HBSC) |
| Body image | • Percentage of P7, S2 and S4 pupils who think that their body is about the right size[1] | • HBSC |
| *Culture and values* [R] | • *Assessment(s) relating to the materialism and individualism of modern Western consumer culture* | • *No suitable data source identified* |

[1] P7, S2 and S4 pupils are circa 11, 13 and 15 year olds, respectively.
[R] Indicates that there is a recommendation attached to the indicator.

## Recommendation
### Culture and values

Further development work is required on the construct of culture and its associated indicator(s).

An in-depth review of the literature is needed to obtain a greater understanding of this complex construct and the academic debates covering such issues as materialism, consumerism and individualism of modern Western society.   This will assist in conceptualising this concept and developing the working understanding further so a suitable indicator(s) can be identified to capture aspects of culture (norms, individualism, materialism, media etc) important to children and young people's mental health and in developing appropriate question(s) suitable for inclusion in national surveys to obtain routine national data.

## 4. Conclusion

The development of this set of mental health indicators for Scotland complements that for adults and is a further significant milestone. It is a recognition of the importance of mental health to a 'flourishing' Scotland and the need for data on mental wellbeing, in addition to data on the prevalence of mental health problems. The current indicator set is necessarily limited by gaps and weaknesses in the evidence-base, availability of data and the feasibility of collecting data, as well as the complexities and ambiguities surrounding key concepts like spirituality. For these reasons it is acknowledged that the current indicator set is not the final answer to creating a summary profile of Scotland's mental health for children and young people. However, it provides a firm basis on which to build and develop a greater understanding of the causes and consequences of mental health and how these can best be measured. It is hoped that this work will also contribute to a greater focus on mental health impact, at a national and local level and across all sectors.

# Reference List

Adi Y, Kiloran A, Janmohamed K and Stewart-Brown S (2007a). *Systematic review of the effectiveness of interventions to promote mental wellbeing in primary schools Report 1: Universal approaches which do not focus on violence or bullying.* Coventry: University of Warwick.

Adi Y, Schrader McMillan A, Kiloran A and Stewart-Brown S (2007b). *Systematic review of the effectiveness of interventions to promote mental wellbeing in primary schools Report 3: Universal Approaches with focus on prevention of violence and bullying.* Coventry: University of Warwick.

Advisory Council on the Misuse of Drugs (2003). *Hidden Harm - Responding to the needs to children of problem drug users. Report of an Inquiry by the Advisory Council on the Misuse of Drugs.* London: Home Office.

Aldgate J, Jones D, Rose W and Jeffery C (Eds.) (2006). *The developing world of the child.* (1st ed.) London and Philadelpia: Jessica Kingsley Publishers.

Aukst-Margetic B and Margeti B (2005). Religiosity and health outcomes: review of literature. *Collegium Antropologicum, 29,* 365-371.

Austin E, Saklofske D and Egan V (2005). Personality, well-being and health correlates of trait emotional intelligence. *Personality and Individual Differences, 38,* 547-558.

Barry M (2009). Addressing the determinants of positive mental health: concepts, evidence and practice. *International Journal of Mental Health Promotion, 11,* 4-17.

Barry M and Friedli L (2008). *Foresight State-of-Science Review: SR-B3. The influence of social, demographic and physical factors on positive mental health in children, adults and older people.* London: The Government Office for Science.

Berthoud R, Ermisch J, Fransesconi M, Liao T, Pevalin D and Robson K (2004). *Teenage Pregnancy Research Programme research briefing 1: Long-term consequences of teenage births for parents and their children.* London: Department for Children Schools and Families.

Black C, Eunson J, Sewel K and Murray L (2011). *Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) National Report: Smoking, drinking and drug use among 13 and 15 year olds in Scotland in 2010.* Edinburgh: National Services Scotland.

Blair M, Stewart-Brown S, Waterston T and Crowther R (2010). Key concepts and definitions. In *Child Public Health* (2nd ed., pp. 129-184). Oxford: Oxford University Press.

Blanchflower D and Oswald A (2008). Is well-being U-shaped over the life cycle? *Social Science & Medicine, 66,* 1733-1749.

Blank L, Baxter S, Goyder L, Guillaume L, Wilkinson A, Hummel S and Chilcott J (2008). *Systematic review of the effectiveness of universal interventions which aim to promote emotional and social wellbeing in secondary schools.* Sheffield: University of Sheffield.

Bogosian A, Moss-Morris R, Hadwin J (2010). Psychosocial adjustment in children and adolescents with a parent with multiple sclerosis: a systematic review. *Clinical Rehabilitation, 24,* 789-801.

Bostock J (2004). The high price of poverty. *Mental Health Today, November,* 27-29.

Bowlby J (1969). *Attachment and Loss Vol 1 Attachment.* London: Hogarth Press, Institute of Psychoanalysis.

Bowling A (2005). *Measuring health: a review of quality of life measurement scales.* (3rd Edition ed.). Maidenhead: Open University Press.

Bradshaw P and Tipping S (2010). *Growing Up in Scotland: Children's social, emotional and behavioural development at entry to primary school.* Edinburgh: Scottish Government.

Brophy M (2006). *Truth Hurts - Report of the National Inquiry into Self-harm among Young People.* London: Mental Health Foundation.

Brugha TS, Wing JK, Brewin CR, MacCarthy B and Lesage A (1993). The relationship of social network deficits with deficits in social functioning in long-term psychiatric disorders. *Social Psychiatry and Psychiatric Epidemiology, 28,* 218-224.

Buijzen M and Valkenburg P (2003). The unintended effects of television advertising. *Communication Research, 30,* 483-503.

Button TM, Maughan B and McGuffin P (2007). The relationship of maternal smoking to psychological problems in offspring. *Early Human development*, 83, 727-732.

Carlisle S (2006). *Thinking about culture as an influence on health and wellbeing. Discussion Paper No. 3. Cultural Influences on Health and Wellbeing in Scotland.* Glasgow: Glasgow University.

Chakraborty A and McKenzie K (2002). Does racism discrimination cause mental illness? *British Journal of Psychiatry, 180,* 475-477.

Chaplin L and John D (2004). Growing up in a material world: age differences in materialism in children and adolescents. *Journal of Consumer Research, 34,* 480-493.

Child and Adolescent Mental Health Development Group (2005). *The mental health of children and young people: A framework for promotion, prevention and care.* Edinburgh: Scottish Executive.

Childnet International (2007). *Cyberbullying. Safe to Learn: Embedding anti-bullying works in schools.* London: Department for Children, Schools and Families.

Christakis D (2009). The effects of infant media usage: what do we know and what should we learn? *Acta Paediatrica, 98,* 8-16.

Chu A, Thorne A and Guite H (2004). The impact on mental well-being of the urban and physical environment: an assessment of the evidence. *Journal of Mental Health Promotion, 3,* 17-32.

Clark C, Candy B and Stansfeld S (2006). *A systematic review on the effect of the built and physical environment on mental health.* London: Mental Health Foundation.

Clarke A, Friede T, Putz R, Ashdown J, Adi Y, Martin S, Flynn P, Blake A, Stewart-Brown S and Platt S (2010). *Warwick-Edinburgh Mental Well-being Scale (WEMWBS) acceptability and validation in English and Scottish secondary school students (The WAVES Project).* Glasgow: NHS Health Scotland.

Clarke A, Friede T, Putz R, Ashdown J, Martin S, Blake A, Adi Y, Parkinson J, Flynn P, Platt S and Stewart-Brown S (2011). Warwick-Edinburgh Mental Well-being Scale (WEMWBS): Validated for teenage school students in England and Scotland. A mixed methods assessment. *BMC Public Health*, 11, 487

Cohen S (2004). Social relationships and health. *American Psychologist, 59,* 676-684.

Coldstream F and le May A (2008). A literature review of the potential effects of having a parent with chronic renal failure. *Journal of Clinical Nursing, 17*, 5a 98-105.

Cooper H, Arber S, Fee L and Fin J (1999). *The influence of social support and social capital on health: A review and analysis of British data.* London: Health Education Authority.

Cooper R, Boyk R and Codinhoto R (2008). *Foresight State-of-Science Review: SR-DR2 The Effect of the Physical Environment on Mental Wellbeing.* London: The Government Office for Science.

Corbett J, Dobbie F, Doig M, D'Souza J, Given L, Gray L, Leyland A, MacGregor A, Marryat L, Maw T, Miller M, Mindell J, Ormston R, Roth M, and Sharp C (2010). *Scottish Health Survey 2009 - Volume 1: Main report* Edinburgh: Scottish Government. (note refer to Scottish Health Survey 2009 revisions - chapter 1 at www.scotland.gov.uk/Resource/Doc/50750/0121245.xls for revised relevant 2008/2009 data).

Cornah D (2006a). *Feeding minds: the impact of food on mental health.* London: Mental Health Foundation.

Cornah D (2006b). *Cheers? Understanding the relationship between alcohol and mental health.* London: Mental Health Foundation.

Cornah D (2006c). *The impact of spirituality on mental health: a review of the literature.* London: Mental Health Foundation.

Correla LL and Linhares MBM (2007). Maternal anxiety in the pre- and postnatal period: a literature review. *Rev Latino-am Enfermagem, 15* (4), 677-683.

Cotton S, Zebracki K, Rosenthal S, Tsevat J and Drotar D (2006). Religion/spirituality and adolescent health outcomes: a review. *Journal of Adolescent Health, 38,* 472-480.

Currie C, Levin K, Kirby j, Currie D, van der Slujis W and Inchley J (2011). *HBSC National Report. Health Behaviour in School-aged Children: World Health Organisation collaborative cross-national study (HBSC): Findings from the 2010 HBSC Survey in Scotland.* Edinburgh: Children and Adolescent Health Research Unit.

Daniel B (2009). Intelligence, realism, sensitivity – and a thick skin. *Children in Scotland, March 2009*, 12-13.

David-Ferdon C and Hertz M (2007). Electronic media, violence and adolescents: an emerging public health problem. *Journal of Adolescent Health, 41,* S1-S5.

Day A, Therrien D and Carroll S (2005). Predicting psychological health: assessing the incremental validity of emotional intelligence beyond personality, type A behaviour and daily hassles. *European Journal of Personality, 19,* 519-536.

De Silva M, McKenzie K, Harpham T and Huttly S (2005). Social capital and mental illness: a systematic review. *Journal of Epidemiology and Community Health, 59,* 619-627.

Dear KBG and McMichael AJ (2011). The health impacts of cold homes and fuel poverty. Three reasons to act: the health burden, inequity, and mitigation. *British Medical Journal* ;342:d2807

Deave T, Heron J, Evans J, Emond A (2008). The impact of maternal depression in pregnancy on early child development. *British Journal of Obstetrics and Gynaecology*, *115,*1043-51.

Department of Health (2001). *Making It Happen: A guide to delivering mental health promotion.* London: Department of Health.

Department of Health (2002). *Women's mental heath: into the mainstream - strategic development of mental health care for women.* London: Department of Health.

Department of Health (2003). *Mainstreaming Gender and Women's Mental Health Implementation Guidance.* London: Mental Health, Health and Social Care Standards and Quality Group.

Department of Health (2009). *New Horizons: Towards a shared vision for mental health: Consultation.* London: Department of Health.

Deviren F and Babb P (2005). *Young People and Social Capital Phase 2 of Joint ONS/DfES Project: Young People and Social Capital*. London: Office for National Statistics.

Dew R, Daniel S, Armstrong T, Goldston D, Triplett M and Koenig H (2008). Religion/spirituality and adolescent psychiatric symptoms: A review. *Child Psychiatry and Human Development, 39,* 381-398.

Dobson F (2004). *Getting Serious about Play: A review of children's play* London: Department for Culture Media and Sport.

Dohnt H and Tiggeman M (2006). The contribution of peer and media influences to the development of body satisfaction and self-esteem in young girls: a prospective study. *Developmental Psychology, 42,* 929-936.

Dolan P, Peasgood T and White M (2006). *Review of research on the influences on personal well-being and application to policy making.* London: Defra.

Dorling D, Mitchell R and Pearce J (2007). The global impact of income inequality on health by age: an observational study. *British Medical Journal, 335,* 873.

Drukker M, Kaplan C and van Os J (2006). *Social capital and quality of life and mental health in Maastricht, the Netherlands: the neighbourhood matters.* In McKenzieK and Harpham T (Eds.), *Social Capital and Mental Health* (pp. 86-105). London and Philadelphia: Jessica Kingsley.

Eckersley R (2006). Is modern Western culture a health hazard? I*nternational Journal of Epidemiology, 35,* 252-258.

Eckersley R (2011). A new narrative of young people's health and wellbeing. *Journal of Youth Studies, 14*, 627-638.

Ellison C and Levin J (1998). The religion-health connection: evidence theory and future direction. *Health Education and Behaviour, 5,* 700-720.

Elsley S and McMellon C (2010). *Checking it out: A consultation with children and young people on a draft framework for children and young people's mental health indicators*. Glasgow: NHS Health Scotland.

Emerson E and Einfeld S (2010). Emotional and behavioural difficulties in young children with and without developmental delay: a bi-national perspective  *The Journal of Child Psychology and Psychiatry 51,* 583-593.

Etnier J, Salazar W, Landers D, Petruzzello S, Han M and Nowell P (1997). The influence of physical fitness and exercise upon cognitive functioning: a meta analysis. *Journal of Sport and Exercise Psychology, 19,* 249-277.

Evans G (2003). The built environment and mental health. *Journal of Urban Health, 80,* 536-555.

Feinstein L, Vorhaus J and Sabates R (2008). *Foresight Mental Capital and Wellbeing Project. Learning through life: Future challenges.* London: The Government Office for Science.

Flouri E (2002). Exploring the relationship between mothers' and fathers' parenting practices and children's materialist values. *Journal of Economic Psychology, 25,* 743-752.

Fonagy P and Higgitt A (2000). An attachment theory perspective on early influences on development and social inequalities. In Osofsky J and Fiztgerald H (Eds.), *WAIMH Handbook of Infant Mental Health* (pp. 520-560). New York: John Wiley.

Foresight (2008). *Foresight Mental capital and wellbeing project. Final project report.* London: The Government Office for Science.

Fowler P, Tompsett C, Braciszewski J, Jacques-Tiura A and Baltes B (2009). Community violence: a meta-analysis on the effect of exposure and mental health outcomes of children and adolescents. *Development and Psychopathology, 21,* 227-259.

Fox K (2000). Physical activity and mental health promotion: the natural partnership. *International Journal of Mental Health Promotion, 2,* 4-12.

Fraser SM (2005). *Promoting a Healthy Respect: What does the evidence support. Briefing paper 2.* Glasgow: NHS Health Scotland.

Freshwater D and Stickle T (2004). The heart of the art: emotional intelligence in nurse education. *Nursing Inquiry, 11,* 91-98.

Friedli L (2004). Medicine for the soul. *Mental Health Today, February,* 24-26.

Friedli L, Oliver C, Tidyman M and Ward G (2007). *Mental health improvement: evidence based messages to improve mental well-being.* Edinburgh: NHS Health Scotland.

Fryers T (2007). *Children at risk: Childhood determinants of adult psychiatric disorders.* Helsinki: STAKES.

Gatineau N and Dent M (2011). *Obesity and mental health 2011.* Oxford: National Obesity Observatory.

Getting it Right For Every Child (2008). *Using the resilience matrix to make sense of assessment information and evaluate children's needs.* Edinburgh: Scottish Government.

Glaser D (2008). Child sexual abuse. In Rutter M, Bishop D, Pine D, Scott S, Stevenson J, Taylor E and Thapar A (Eds.), *Rutter's Child and Adolescent Psychiatry* (5th ed.) Oxford: Blackwell publishing.

Golding J (1999). Intimate partner violence as a risk factor for mental disorders: a meta-analysis. *Journal of Family Violence, 14,* 99-132.

Goleman D (1995). *Emotional Intelligence.* New York: Bantam Books.

Goodwin M and Armstrong-Esther D (2004). Children, social capital and health: increasing the well-being of young people in rural Wales. *Children's Geographies, 2,* 49-63.

Gordon D, Adelman L, Ashworth K, Bradshaw J, Levitas R, Middleton S, Pantazis C, Patsios D, Payne S, Townsend P and Williams J (2000). *Poverty and Social Exclusion in Britain.* York: Joseph Rowntree Foundation.

Grant T (Ed.) (2000). *Physical activity and mental health: national consensus statements and guidelines for practice.* London: Somerset Health Authority/Health Education Authority.

Gray N, Klein J, Noyce P, Sesselberg T and Cantrill J (2005). Health information-seeking behaviour in adolescence: the place of the internet. *Social Science and Medicine, 60,* 1467-1748.

Green H, McGinnity Á, Meltzer H, Ford T and Goodman R (2005). *Mental health of children and young people in Great Britain, 2004.* London: Office for National Statistics.

Grych JH, Seid M and Fincham FD (1992). Assessing marital conflict from the children's perspective: the children's perception of interparental conflict scale. *Child Development, 63*, 558-572.

Harden A, Rees R, Shepherd J, Brunton G, Oliver S and Oakley A (2001). *Young people and mental health: a systematic review of research on barriers and facilitators.* London: Eppi-Centre.

Harden A, Brunton G, Fletcher A, Oakley A, Burchett H, Backhans M (2006) *Young people, pregnancy and social exclusion: A systematic synthesis of research evidence to identify effective, appropriate and promising approaches for prevention and support.* London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

Harden A, Brunton G, Fletcher A, Oakley A (2009). Teenage pregnancy and social disadvantage: systematic review integrating controlled trials and qualitative studies. British Medical Journal, 39, b4254

Harper R (2001). *Social capital: a review of the literature.* London: Office for National Statistics.

Harper R and Kelly M (2003). *Measuring Social Capital in the United Kingdom.* London: Office for National Statistics.

Harris J (2008). Brain disorders and their effect on psychopathology. In Rutter M, Bishop D, Pine D, Scott S, Stevenson J, Taylor E and Thapar A (Eds.), *Rutter's Child and Adolescent Psychiatry* (5th ed.). Oxford: Blackwell publishing.

Hawton K, Zahl D, & Weatherall R (2003). Suicide following deliberate self-harm: long-term follow up of patients who presented to a general hospital. *British Journal of Psychiatry,* 182, 537-542.

Herman H and Jané-Llopis E (2005). Mental health promotion in public health. *Promotion & Education, 12,* 42-47.

Hill P and Pargament K (2003). Advances in the conceptualization and measurement of religion and spirituality. Implications for physical and mental health research. *American Psychologist, 58,* 64-74.

HM Government (2011). *No health without mental health. Delivering better mental health outcomes for people of all ages.* London: Department of Health.

Holland J, Reynolds T and Weller S (2007). Transitions, networks and communities: the significance of social capital in the lives of children and young people. *Journal of Youth Studies, 10,* 97-116.

Howell S (2007). *Highlight no. 233. Young people, substance misuse and mental health problems: the challenge of dual diagnosis.* London: National Children's Bureau.

Huesmann L (2007). The impact of electronic media violence: scientific theory and research. *Journal of Adolescent Health, 41,* S6-S13.

Humphreys C, Houghton C and Ellis J (2008). *Literature review: Better outcomes for children and young people experiencing domestic abuse - directions for good practice.* Edinburgh: Scottish Government.

Huppert FA, Baylis N and Keverne B (Eds.) (2005). *The science of well-being.* Oxford: Oxford University Press.

Hutchison C, Porter S and De Voil S (2003). *Live to tell. Findings from a study of suicidal thoughts, feelings and behaviours amongst young gay and bisexual men in Edinburgh.* Edinburgh: LGBT Youth Scotland.

Hutchinson J, Pickett KE, Green J, Wakschlag LS (2010). Smoking in pregnancy and disruptive behaviour in 3-year-old boys and girls: an analysis of the UK Millennium cohort study. *Journal of Epidemiology and Community Health, 64,* 82-8.

I CAN (2008). *I CAN Talk* series - Issue 6: Speech, language and communication needs and primary school-aged children. London: I CAN.

Irwin LG, Siddiqi A, and Hertzman C. (2007). *Early child development: A powerful equalizer. Final report for the World Health Organization's Commission on the social determinants of health.* Vancouver: Human Early Learning Partnership, University of British Columbia.

ISD Scotland (2012). *Drug Misuse Statistics Scotland 2011.* Edinburgh: ISD Scotland.

Jané-Llopis E and Braddick F (2008). *Mental health in youth and education. Consensus paper.* Luxembourg: European Communities.

Janssen I and LeBlanc AG (2010). Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *International Journal of Behavioural Nutrition and Physical Activity, 7,* 40

Jenkins J (2008). Psychosocial adversity and resilience. In Rutter M, Bishop D, Pine D, Scott S, Stevenson J, Taylor E and Thapar A (Eds.), *Rutter's Child and Adolescent Psychiatry* (5th ed.). Oxford: Blackwell publishing.

Jenkins R, Meltzer H, Jones P B, Brugha T, Bebbington P, Farrell M, Crepaz-Keay D and Knapp M (2008). *Foresight Mental Capital and Wellbeing Project. Mental health: Future challenges.* London: The Government Office for Science.

Johnson RM, Kotch JB, Catellier DJ, Winsor JR, Dufort V, Hunter W and Amaya-Jackson L (2002). Adverse behavioural and emotional outcomes from child abuse and witnessed violence. *Child Maltreatment, 7,* 179-186.

Jones DPH (2008). Child maltreatment. In Rutter M, Bishop D, Pine D, Scott S, Stevenson J, Taylor E and Thapar A (Eds.), *Rutter's Child and Adolescent Psychiatry* (5th ed.). Oxford: Blackwell publishing.

Kappos A (2007). The impact of electronic media on mental and somatic children's health. *International Journal of Hygiene and Environmental Health, 210,* 555-562.

Karim K, Tischler V, Gregory P and Vostanis P (2006). Homeless children and parents: short-term mental health outcomes. *International Journal of Social Psychiatry, 52,* 447-458.

Kawachi I, Kennedy B and Lochner K (1997). Health and social cohesion: why care about income inequality? *British Medical Journal, 314,* 1037-1040.

Keyes CL, Shmotkin D and Ryff C (2002). Optimizing well-being: the empirical encounter of two traditions. *Journal of Personality and Social Psychology, 82,* 1007-1022.

Kintrea K, Bannister J, Pickering J, Reid M and Suzuki N (2008). *Young people and territoriality in British cities.* York: Joseph Rowntree Foundation.

Kirby J, Van der Sluijs W and Inchley J (2008). *Young people and substance use: the influence of personal, social and environmental factors on substance use among adolescents in Scotland.* Edinburgh: NHS Health Scotland.

Kirkorian H, Wartella E and Anderson D (2008). Media and young children's learning. *Future of Children, 18,* 39-61.

Kirkwood T, Bond J, May C, McKeith I and Teh M (2008). *Foresight Mental Capital and Wellbeing Project. Mental capital through life: Future challenges.* London: The Government Office for Science.

Koenig H (2008). Concerns about measuring "spirituality" in research. *The Journal of Nervous and Mental Disorder, 196,* 349-355.

Koenig H (2009). Research on religion, spirituality, and mental health: A review. *The Canadian Journal of Psychiatry, 54,* 283-291.

Korkeila JJA (2000). *Measuring Aspects of Mental Health.* Helsinki: National Research and Development Centre for Welfare and Health.

Kreiger N (1999). Embodying inequality: a review of concepts, measures and methods for studying health consequences of discrimination. *International Journal of Health Services, 29,* 295-352.

Krug EG, Dahlberg LL, Mercy JA, Zwi AB and Lozano R (Eds.) (2002). *World report on violence and health.* Geneva: World Health Organization.

Layard R and Dunn J (2009). *A Good Childhood.* London: Penguin Books.

Learning and Developmental Disabilities Initiative (2008). *Mental health and environmental exposures, fact sheet.* Bolinas CA: Collaborative on Health and the Environment.

Leonard M (2005). Children, childhood and social capital: exploring the links. *Sociology, 39,* 605-622.

Lester S and Russell W (2007). *Play for Change. Play, policy and practice; a review of contemporary perspectives.* London: Play England.

Levin K, Todd J, Currie D and Currie C (2007*). HBSC Briefing paper 14: Mental well-being of young people in Scotland: 1994-2006*. Edinburgh: Child & Adolescent Health Research Unit.

Levin KA and Currie C (2010). Family structure, mother-child communication, father-child communication, and adolescent life satisfaction: A cross-sectional multilevel analysis. *Health Education, 110,* 152-168.

Lim K, Corlett L, Thompson L, Law J, Wilson P, Gillberg C and Minnis H (2010) Measuring attachment in large populations: A systematic review. *Educational & Child Psychology, 27,* 22-32.

Livingstone S and Brake DR (2009). On the rapid rise of social networking sites: New findings and policy implications. *Children and Society,* 24, 75-83.

Loureiro T and da Vinci Fellow L (2009). *Child and family impact assessments in court: implications for policy and practice*. Edinburgh: Families Outside.

MacBeath J, Thomson B, Arrowsmith J and Forbes D (1992a). *Using ethos indicators in primary school self-evaluation: Takign account of the views of pupils, parents and teachers.* Edinburgh: Scottish Office Education Department.

MacBeath J, Thomson B, Arrowsmith J and Forbes D (1992b). *Using ethos indicators in secondary school self-evaluation: Taking account of the views of pupils, parents and teachers.* Edinburgh: Scottish Office Education Department.

McCollam A, O'Sullivan C, Mukkala M, Stengård E and Rowe P (2008). *Mental Health in the EU Key Facts, Figures, and Activities: A Background Paper provided by the SUPPORT-project.* Luxembourg: European Commission.

Meltzer H, Gill B, Petticrew M and Hinds K (1995). *Surveys of psychiatric morbidity in Great Britain. Report 2: physical complaints, service use and treatment of adults with psychiatric disorder.* London: HMSO.

Meltzer H, Gatward R, Goodman R and Ford T (2000). *Mental health of children and adolescents in Great Britain.* London: The Stationery Office.

Meltzer H, Lader D, Corbin T, Goodman R and Ford T (2004). *The mental health of young people looked after by local authorities in Scotland.* Norwich: Office for National Statistics.

Meltzer H (2008). *Foresight State-of-Science Review: SR-B4 The Influence of Social, Demographic and Physical Factors on Mental Disorders in Children and Adolescents.* London: The Government Office for Science.

Melzer D, Fryers T and Jenkins R. (2004). *Social inequalities and the distribution of common mental disorders (vols. Maudsley Monograph 44).* Hove: Psychology Press.

Mental Health Foundation (2005). *Up and running? Exercise therapy and the treatment of mild or moderate depression in primary care.* London: Mental Health Foundation.

Mitchell RJ, Tod E and McCartney G (2010). *Children and young people health and wellbeing profiles: Scotland overview.* Glasgow: NHS Health Scotland.

Mutrie N (2000). The relationship between physical activity and clinically defined depression. In Biddle S, Fox B and Boutcher S (Eds.), *Physical activity and psychological well-being*. London: Routledge.

Myers F, McCollam A and Woodhouse A (2005). *Addressing Mental Health Inequalities in Scotland: Equal minds.* Edinburgh: Scottish Executive.

Nairn A, Ormrod J and Bottomley P (2007). *Watching, wanting and wellbeing: exploring the links.* London: National Consumer Council.

National Literacy Trust – Talk to Your Baby (2010). *The long-term impact of early speech, language and communication difficulties.* London: National Literacy Trust.

Nazroo J and Karlsen S (2001). *Ethnic inequalities in health: social class, racism and identity ESRC Research Findings 10 from the Health Variations Programme.* Lancaster: Lancaster University.

North A and Hargreaves D (2006). Problem music and self-harming. *Suicide and Life-Threatening Behavior, 36,* 582-590.

O'Connor MJ and Paley P (2009). Psychiatric conditions associated with prenatal alcohol exposure. *Developmental Disabilities Research Reviews, 15*, 225-234.

O'Connor TG, Heron J, Golding J, Beveridge M, Glover V (2002). Maternal antenatal anxiety and children's behavioural/emotional problems at 4 years Report from the Avon Longitudinal Study of Parents and Children. *The British Journal of Psychiatry, 180*, 502-508

O'Connor TG, Heron J, Golding J, Glover V and the ALSPAC Study Team (2003). Maternal antenatal anxiety and behavioural/emotional problems in children: a test of a programming hypothesis. *Journal of Child Psychology and Psychiatry, 44,* 1025-1036.

Olson C (2004). Media violence research and youth violence data: why do they conflict? *Academic Psychiatry, 28,* 144-150.

Parkinson J (2007a). *Establishing a core set of national, sustainable mental health indicators for adults in Scotland: Rationale Paper.* Glasgow: NHS Health Scotland.

Parkinson J (2007b). *Establishing a core set of national, sustainable mental health indicators for adults in Scotland: Final report.* Glasgow: NHS Health Scotland.

Parkinson J (2008). *Establishing a core set of national, sustainable mental health indicators for children and young people in Scotland: Report of the launch event of 21st April 2008.* Glasgow: NHS Health Scotland.

Parkinson J (2010a). *Establishing a core set of national, sustainable mental health indicators for children and young people in Scotland: Draft framework consultation document.* Glasgow: NHS Health Scotland.

Parkinson J (2010b). *Children and Young People's Mental Health Indicators: Briefing Update.* Glasgow: NHS Health Scotland.

Parkinson J (2012). *Establishing a core set of national, sustainable mental health indicators for children and young people in Scotland: Report of the event of 25th November 2011 to launch the completed indicator set.* Glasgow: NHS Health Scotland.

Parry-Langdon N, Clements A, Fletcher D and Goodman R (2007). *Three years on: Survey of the emotional development and well-being of children and young people* London: Office for National Statistics.

Patel V, Flisher A, Hetrick S and McGorry P (2007). Mental health of young people: a global public-health challenge. *Lancet, 369,* 1302-1313.

Pederson S and Revenson TA (2005). Parental illness, family functioning, and adolescent well-being: a family ecology framework to guide research. *Journal of Family Psychology, 19*, 404-409.

Peter T, Roberts LW, Dengate J (2011). Flourishing in life: an empirical test of the dual continua model of mental health and mental illness among Canadian university students. *International Journal of Mental Health Promotion, 13,* 13-22

Piko B (2006). Satisfaction with life, psychosocial health and materialism among Hungarian youth. *Journal of Health Psychology, 11,* 827-831.

Prince M, Patel V, Saxena S, Maj M, Moselko J, Phillips MR and Rahmna A (2007). No health without mental health. *The Lancet, 370,* 859-877.

Proctor CL, Linley PA and Maltby J (2009). Youth life satisfaction: a review of the literature. *Journal of Happiness Studies, 10,* 583-630.

Puckering C (2007). *Infant mental health: A guide for practitioners, March 2007. A report of the expert working group on infant mental health.* Edinburgh: HeadsUpScotland.

Ramchandani R and Psychogiou L (2009). Paternal psychiatric disorders and children's psychosocial development. *The Lancet, 374*, 646-653.

Rees G, Francis L and Robbins M (2006). *Spiritual health and the well-being of urban young people.* London: The Children's Society.

Reeves A (2005). Emotional Intelligence: Recognizing and Regulating Emotions. *AAOHN Journal, 53,* 172-176.

Reid G and Teuton J (2010). *Outcomes framework for Scotland's mental health improvement strategy.* Edinburgh: NHS Health Scotland.

Reilly JJ (2009). *Highlight no. 250 Obesity in children and young people.* London: National Children's Bureau.

Respectme (2007). Cyber bullying…Are you switched on?. Glasgow: Respectme.

Ridge T (2009). *Living with Poverty. A review of the literature on children's and families' experiences of poverty. Department for Work and Pensions research report no 594.* London: Department for Work and Pensions.

Rivers I and Noret N (2009). 'I h 8 u': findings from a five-year study of text and email bullying. *British Educational Research Journal, electronic 10.1080/01411920903071918,* 1-29.

Rogers A and Pilgrim D (2003). *Mental health and inequality*. Basingstoke: Palgrave Macmillan.

Royal College of Psychiatrists (2004). *Domestic violence: its effects on children.* London: Royal College of Psychiatrists.

Royal College of Psychiatrists (2010). *Self-harm, suicide and risk: helping people who self-harm. Final report of a working group College Report CR158.* London: Royal College of Psychiatrists.

Royal College of Psychiatrists' Public Education Editorial Board (2006). *Cannabis and mental health.* London: Royal College of Psychiatrists.

Royal College of Psychiatrists' Public Education Editorial Sub-Committee (2008). *Eating disorders.* London: Royal College of Psychiatrists.

Rutter M, Maughan B, Mortimore P, Ouston J and Smith A (1979). *Fifteen Thousand Hours: Secondary Schools and their effects on children.* Cambridge, MA: Harvard University Press.

Ryan R and Deci E (2001). On happiness and human potentials: a review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52,* 141-166.

Ryff C (1989). Happiness is everything or is it? Explorations on the meaning of psychological wellbeing. *Journal of Personal Social Psychology, 57,* 1069-1081.

Ryff C and Keyes C (1995). The Structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69,* 719-727.

Ryff CD, Singer BH, and Love GD (2004). Positive health: connecting well-being with biology. *Philosophical Transactions of the Royal Society of London, 359,* 1383-1394.

Sammons P, Sylva K, Melhuish E, Siraj-Blatchford I, Taggart B, Draghici D, Toth K and Smees R. (2011). *Influences on student's development in key stage 3: Social-behavioural outcomes in year 9.* London: Institute of Education.

Sampson RJ, Raudenbush SW and Earls F (1997). Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy. *Science, 277,* 918-924.

Sandberg S and Rutter M (2008). Acute life stresses. In Rutter M, Bishop D, Pine D, Scott S, Stevenson J, Taylor E and Thapar A (Eds.), *Rutter's Child and Adolescent Psychiatry* (5th ed.). Oxford: Blackwell publishing.

Schaefer-McDaniel NJ (2004). Conceptualizing social capital among young people: Towards a new theory. *Children, Youth and Environments, 14,* 140-150.

Schor J (2004). *Born to Buy.* New York: Scribner.

Scottish Anti-Bullying Steering Group (2010). *A National Approach to Anti-Bullying for Scotland's Children and Young People.* Edinburgh: Scottish Government.

Scottish Executive (2003a). *Improving Health in Scotland - The Challenge.* Edinburgh: The Stationery Office Bookshop.

Scottish Executive (2003b). *National Programme for Improving Mental Health and Well-being: Action Plan 2003-2006.* Edinburgh: Scottish Executive.

Scottish Executive (2004a). *A curriculum for excellence: The curriculum review group.* Edinburgh: Scottish Executive.

Scottish Executive (2004b). *Getting it Right for Every Child.* Edinburgh: Scottish Executive.

Scottish Government (2008a). *Curriculum for Excellence Building the Curriculum 3: A framework for learning and teaching.* Edinburgh: Scottish Government.

Scottish Government (2008b). *Early Years Framework.* Edinburgh: Scottish Government.

Scottish Government (2008c). *Equally Well: Report of the ministerial task force on health inequalities.* Edinburgh: Scottish Government.

Scottish Government (2009). *Towards a mentally flourishing Scotland: Policy and action plan 2009-2011.* Edinburgh: Scottish Government.

Scottish Government (2011a). *Mental health strategy for Scotland: 2011-2015. A consultaton.* Edinburgh: Scottish Government.

Scottish Government (2011b). *Summary of changes to Scottish Government surveys from 2012 onwards and the impact on users of survey data.* Edinburgh: Scottish Government.

Scottish Government (2011c). *Scottish Health Survey questionnaire review 2012-2015: Final Report December 2011.* Edinburgh: Scottish Government.

Scottish Government (2011d). *A new look at HALL 4 The early years. Good health for every child.* Edinburgh: Scottish Government.

Scottish Government (2011e). *Responding to self-harm in Scotland Final report: Mapping out the next stage of activity in developing services and health improvement approaches.* Edinburgh: Scottish Government.

Scottish Intercollegiate Guidelines Network (2010). *Guideline 115: Management of obesity: A national clinical guideline.* Edinburgh: NHS Quality Improvement Scotland.

Shipton D and Whyte B (2011). *Mental health in focus: A profile of mental health and wellbeing in Greater Glasgow and Clyde.* Glasgow: Glasgow Centre for Population Health.

Shucksmith J, Spratt J, Philip K and McNaughton R (2009). *A critical review of the literature on children and young people's views of the factors that influence their mental health.* Glasgow: NHS Health Scotland.

Sieh DS, MeijerAM, Oort FJ, Visser-Meily JMA, Van der Leij DAV (2010). Problem behaviour in children of chronically ill parents: a meta-analysis. *Clinical Child and Family Psychology Review, 13*, 384-397.

Social Exclusion Unit (1998). *Bringing Britain together: a national strategy for neighbourhood renewal.* London: Office of the Deputy Prime Minister.

Social Exclusion Unit (2001). *Preventing social exclusion.* London: Office of the Deputy Prime Minister.

Social Exclusion Unit (2004). *Mental health and social exclusion: social exclusion unit report.* London: Office of the Deputy Prime Minister.

St John T, Leon L and McCulloch A (2005). *Lifetime impacts. Childhood and adolescent mental health: understanding the lifetime impacts.* London: Mental Health Foundation.

Stein A, Ramchandani P and Murray L (2008). Impact of parental psychiatric disorder and physical illness. In Rutter M, Bishop D, Pine D, Scott S, Stevenson J, Taylor E and Thapar A (Eds.), *Rutter's Child and Adolescent Psychiatry* (5th ed.). Oxford: Blackwell publishing.

Stewart-Brown S (2002). Measuring the parts most measures do not reach: a necessity for evaluation in mental health promotion. *Journal of Mental Health Promotion, 1,* 4-9.

Stewart-Brown S (2005). Interpersonal relationships and the origins of mental health. *Journal of Public Mental Health, 4,* 24-29.

Stewart-Brown S and Shaw R (2004). *Chapter 9 The roots of social capital: relationships in the home during childhood and health in later life in social capital for health: issues of definition, measurement and links to health.* London: Health Development Agency.

Subrahmanyam K and Greenfield P (2008). Online communication and adolescent relationships. *Future of Children, 18,* 119-146

Swann C, Bowe K, McCormick G and Kosmin M (2003). *Teenage pregnancy and parenthood: a review of reviews Evidence briefing (1st edition).* London: Health Development Agency.

Tarshis TP and Huffman LC (2007). Psychometric properties of the peer interactions in primary school (PIPS) questionnaire. *Journal of Developmental and Behavioural Pediatrics, 28,* 125-132.

Taulbut M, Parkinson J, Catto S and Gordon D. (2009). *Scotland's mental health and its context: Adults 2009.* Glasgow: NHS Health Scotland.

Taylor S (1998). *Summary on reactive responding. Psychosocial working group MacArthur Network on SES and Health* http://www.macses.ucsf.edu/research/psychosocial/notebook/ReacResp.html.

Tennant R, Fishwick R, Platt S, Joseph S, & Stewart-Brown S. (2006). *Monitoring positive mental health in Scotland: validating the Affectometer 2 scale and developing the Warwick-Edinburgh Mental Well-Being Scale for the UK.* NHS Health Scotland: Glasgow.

Tennant R, Hiller L, Fishwick R, Platt S, Joseph S, Weich S, Parkinson J, Secker J and Stewart-Brown S (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation. *Health and Quality of Life Outcomes, 5*, 63.

Thapar A and Rutter M (2008). Genetics. In Rutter M, Bishop D, Pine D, Scott S, Stevenson J, Taylor E and Thapar A (Eds.), *Rutter's Child and Adolescent Psychiatry* (5th ed.). Oxford: Blackwell publishing.

The British Dietetic Association (2006). *The role of diet in the management of mental health service users. Media release.* Birmingham.

Tomlinson D, Wilkinson H, and Wilkinson P (2009). Diet and mental health in children. *Child and Adolescent Mental health, 14,* 148-155.

Tomlinson M and Walker R (2010). *Recurrent poverty: the impact of family and labour market changes.* York: Joseph Rowntree Foundation.

Trinidad DR, Unger JB, Chou C-P and Johnson A (2004). The protective association of emotional intelligence with psychosocial smoking risk factors for adolescents. *Personality and Individual Differences, 36,* 945-954.

Tudor K (1996). *Mental Health Promotion: Paradigms and practice*. London: Routledge.

UNICEF (2007). *Child poverty in perspective: An overview of child well-being in rich countries, Innocenti Report Card 7* Florence: UNICEF Innocenti Research Centre.

United Nations General Assembly (1989). *Convention on the Rights of the Child. Un General Assembly Document A/RES/44/25.*

Utter J, Neumark-Sztainer D, Wall M and Story M (2003). Reading magazine articles about dieting and associated weight control behaviors among adolescents. *Journal of Adolescent Health, 32,* 78-82.

Vaillant GE (2003). Mental Health. *American Journal of Psychiatry, 160,* 1373-1382.

Van de Weyer C (2005). *Changing diets, changing minds: how food affects mental well being and behaviour.* London: Sustain.

van Dierendonck D and Mohan K (2006). Some thoughts on spirituality and eudaimonic well-being. *Mental Health, Religion and Culture, 9,* 227-238.

Vitello-Cicciu J (2003). Innovative leadership through emotional intelligence. *Nursing Management, 34,* 203-210.

Vostanis P, Grattan E and Cumella S (1998). Mental health problems of homeless children and families: longitudinal study. *British Medical Journal, 316,* 899-902.

Weare K and Gray G (2003). *What works in developing children's emotional and social competence and wellbeing?.* Nottingham: Department for Education and Skills.

Whitelaw S, Swift J, Goodwin A and Clark D (2008). *Physical activity and mental health: the role of physical activity in promoting mental wellbeing and preventing mental health problems. An evidence briefing.* Glasgow: NHS Health Scotland.

Whiting E and Harper R (2003). *Young people and social capital.* London: Office for National Statistics.

Wilkinson, R. (2005). *The impact of inequality: how to make sick societies healthier.* London: Routledge.

Wilkinson R and Pickett K (2006). Income inequality and population health: a review and explanation of the evidence. *Social Science and Medicine, 62,* 1768-1784.

Wilkinson R and Pickett K (2007). The problems of relative deprivation: Why some societies do better than others. *Social Science and Medicine, 65,* 1965-1978.

Wilson B (2008). Media and children's aggression, fear and altruism. *Future of Children, 18,* 87-118.

Wilson H, Stover C and Berkowitz S (2009). Research review: the relationship between childhood violence exposure and juvenile antisocial behaviour: a meta-analytic review. *Child Psychology and Psychiatry, 50,* 769-779.

Wong Y, Rew L and Slaikeu K (2006). A systematic review of recent research on adolescent religiosity/spirituality and mental health. *Issues in Mental Health Nursing, 27,* 161-183.

World Health Organization, Victorian Health Promotion Foundation and University of Melbourne (2004). *Promoting mental health: concepts, emerging evidence, practice.* Geneva: WHO.

Youcha V (2006). *Research summary: children exposed to violence.* Washington: Zero to Three.

Young R, Sweeting H and West P (2006). Prevalence of deliberate self-harm and attempted suicide within contemporary Goth youth subculture: longitudinal cohort study. *British Medical Journal, 332,* 1058-1061.